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THE BIRDS OF KNOX COUNTY, TENNESSEE

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and

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INTRODUCTION

Our purpose is to list those species of birds for which reliable records for Knox County are available. For each species we have given the numerical status, the seasonal occurrence, and where possible, data on singing, reproduction, and other observations of interest.

Our sources of information have included the issues of the *Migrant* from 1931 through June, 1956, the roadside censuses and other field trips of Joseph C. Howell, and the personal records of William M. Walker, Muriel B. Monroe, and members of the Knoxville chapter of the Tennessee Ornithological Society. All records used have clearly applied to Knox County, and have included the date, and when possible, the name of the observer and the nearest landmark. Some records have not been utilized because they failed to include all of these essential facts.

The largest number of records have been obtained from check lists of 372 trips—154 roadside censuses, and 218 other field trips—taken by Joseph C. Howell in the years 1947 through 1953. The methods used to conduct the roadside censuses are described in detail in an earlier article (J. C. Howell, *Auk* 68:334-335). In the following list, the roadside censuses are given by year and by date. Each was of exactly four hours' duration. Morning censuses are indicated by an a, afternoon ones by a p. There are 77 of each. 1947: July 27a, 31p; Aug. 6a, 9p, 10a, 13p, 16a, 20a, 23p; Sept. 24p, 26a; Oct. 4p, 5a, 11p, 14a, 18a, 25p, 26a; Nov. 1p, 4a, 8a, 8p, 13p, 15a, 22a, 23p, 26p, 30a; Dec. 4a, 6p, 7a, 7p, 13a, 14p, 15p, 16a. 1948: Jan. 3p, 4a, 10a, 11p, 17a, 18p, 22p, 25p; Feb. 1p, 7a, 8a, 8p, 14p, 15a, 21p, 22a, 28p, 29a; Mar. 6a, 7p, 12a, 13p, 14a, 19a, 20p, 22p, 27p, 29a; Apr. 3p, 4a, 5a, 10p, 11a, 20p,

25a, 25p, 28a, 29p; May 1p, 5a, 9a, 9p, 19a, 20p, 23a, 23p, 28p, 30a; June 2a, 3a, 3p, 4p, 14p, 19a, 20a, 24p, 25p, 26a; July 1p, 4a, 5p, 8p, 11a, 15p, 17a, 22a, 25a, 29p; Aug. 1p, 5p, 7a, 12p, 14a, 19p, 21a, 22a, 26p, 30a; Sept. 2a, 4a, 6p, 9p, 11a, 12p, 18a, 19p, 21a, 21p. 1949: June 3a, 6p, 7a, 8p, 9p, 18p, 23a, 25a, 25p, 28a; July 2a, 3p, 4p, 9p, 12a, 16p, 19a, 23a, 26a, 29p; Aug. 4a, 5a, 6p, 13p, 14p, 18a, 20p, 25a, 27a, 30p. Regular field trips other than censuses were usually taken by walking through a wide variety of habitats that were thought likely to provide a better than average opportunity to observe birds. These trips varied in length from as little as an hour or two, to a few lasting from before dawn to later than sundown. It is worthy of note that the average length of these trips was 4.1 hours, or very close to that of roadside censuses. Regular field trips, however, averaged a little longer in spring than in winter. The number of these trips, taken by months, is as follows: January, 17; February, 9; March, 17; April, 38; May, 34; June, 18; July, 11; August, 15; September, 21; October, 13; November, 16; December, 9.

The tables showing the abundance of species are based on information from both types of trips. For permanent residents, data from all 372 trips are utilized. For species not occurring throughout the year, the numbers given in the tables refer to birds contacted on those trips within the period or periods between the average earliest arrival and the average latest departure dates. Average dates have been computed from the personal records of J. C. Howell and M. B. Monroe for the years 1947 through 1953, by averaging the actual earliest (or latest) date either of us had for each year. The birds observed prior to the average earliest, or subsequent to the average latest date, are not used in determining numerical statuses. For the sake of uniformity, all entries under the heading, "Birds per Trip" have been carried out to one decimal place, and all percents have been computed to the nearest whole number. A dash indicates less than 0.05 birds per trip.

Actual earliest and latest dates (as opposed to average dates) are taken from all records available to us from any observer in any year. In a few cases where an early or a late record is for an unexpected date, we have omitted it, or listed it separately, as it might have referred to an injured individual.

Information in particular records (not tables) is given in this order: date, number of individuals, locality (referring to the nearest named landmark), and observer.

A table of abbreviations is given below. Initials of observers are enclosed in parentheses so that they may be easily distinguished from other abbreviations. All records are those of J. C.

Howell unless another observer is indicated.

Localities (shown on map)		Observers
A.J.L.	Andrew Jackson Lake	(A.F.G.) Albert F. Ganier
C.	Concord	(E.O.H.) Earl O. Henry
Ft.L.L.	Fort Loudon Lake	(J.C.H.) Joseph C. Howell
F.C.	Fountain City	(H.P.I.) Harry P. Ijams
G.F.	Gallaher Ferry	(W.M.J.) William M. Johnson
H.M.	House Mountain	(A.J.M.) Andrew J. Meyerriecks
I.H.	Island Home	(M.B.M.) Muriel B. Monroe
P.	Powell	(S.A.O.) S. Arthur Ogden
R.S.	Roaring Springs	(J.T.T.) James T. Tanner
S.H.	Sequoyah Hills	(T.O.S.) Tenn. Ornithological Soc.
U.T.C.F.	Univ. of Tenn. Cherokee Farm	(W.M.W.) William M. Walker

Other Abbreviations

Sp.	Spring	M.	Migrant
Su.	Summer	V.	Visitant
F.	Fall	Ac.	Accidental
W.	Winter	N.	Nest
P.	Permanent	E.	Eggs
R.	Resident	Y.	Young

Two farms mentioned in the paper are located as follows: Sterchi Farm is just south of Dry Gap; Strong Farm is four miles east of John Sevier.

Singing tables are given showing the number of birds which were initially contacted through hearing them sing, as distinct from hearing their calls or seeing them. Bird sounds that function chiefly in the announcement of territory are treated as songs. Thus the "Bob-white" sound, the cooing of the Mourning Dove, the sounds of Nighthawks (both calls and noises made with wings) are so considered.

The Knoxville Airport is located a few miles outside of Knox County in Blount County. Twice there have been ceilometer disasters to birds at the airport (Oct. 7-8, 1951, and Oct. 6-7, 1954). These afford an excellent record of the relative abundance of certain migratory species at that time of year. The presence among the dead birds of a Swainson's Warbler is of interest since we have no record for it in Knox County. Another unexpected bird was a Blackpoll Warbler, never identified in Knox County in the fall. See (J. C. H. and J. T. T., Migrant 22:61); (J. T. T., Migrant 25:57), and (J. C. H., Migrant 26:53).

The map shows the size, and position in Tennessee, of Knox County. It is characterized by parallel ridges and valleys and has an average elevation of a little less than one thousand feet. Seventy-two percent of the county is in farms. Ecologically, the county is about sixty percent within the yellow pine-hardwoods general forest type, and forty percent upland hardwoods.

The 231 species treated in this paper are arranged in the order in which they appear in the fourth (1931) edition of the Check-list of North American Birds prepared by the American Ornithologists' Union (except that the Pigeon Hawk is placed at the end of the list rather than in its correct position, which is after the Peregrine Falcon, since this species was not observed until after the completion of the original manuscript).

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LIST OF SPECIES

1—COMMON LOON (*Gavia immer*). — Sp. and F. M. No winter record. Spring records: Mar. 26, 1949, 2, C.; Mar. 26, 1950, 6, C.; Apr. 5, 1952, 1, C., Richard Lorenz, (J. T. T., Migrant, 23:53). Fall records: Nov. 9, 1939, 1, Rutledge Pike, (W. M. W., Migrant, 10:76); Nov. 14, 1948, 1, C.; Nov. 23, 1952, 2, C.; Nov. 30, 1951, 1, C.

2—HORNED GREBE (*Podiceps auritus*). — W. R. Nov. 12, 1950, 1, C.; Nov. 18, 1951, 1, C.; Dec. 10, 1950, 2, C.; Dec. 17, 1950, 4, C.; Jan. 24, 1954, 5, C.; Mar. 22, 1936, 1, A. J. L., (W. M. W.).

3—PIED-BILLED GREBE (*Podilymbus podiceps*). — W. R. Average earliest fall record, Oct. 2; earliest, July 24, 1938, 1, A. J. L., (W. M. W.). Average latest spring record, Mar. 28; latest, May 1, 1949, 1, Ft. L. L., B. Crouch.

Abundance: Based on 130 trips between Oct. 2 and Mar. 28.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		6	2	4						9	76	3
No. of Trips		25	19	24						19	26	17
Birds Per Trip		0.2	0.1	0.2						0.5	2.9	0.2
No. of Trips Contacted		3	2	1						4	10	3
% of Trips Contacted		12	11	4						22	38	18

4—WHITE PELICAN (*Pelecanus erythrorhynchos*). — Ac. Known from two records: May 8, 1935, 1, Knoxville, (W. M. W., Migrant, 6:38); Sept. 25 to Oct. 9, 1949, 1, (wounded, captive), C., (M. B. M.).

5—DOUBLE-CRESTED CORMORANT (*Phalacrocorax auritus*). — W. R. Three fall records, each for one bird, A. J. L., (W. M. W.) Oct. 10, 1936; Oct. 31, 1937; Nov. 20, 1938. One winter record, Jan. 27, 1935, 1, A. J. L., (W. M. W.). Fifteen spring records: earliest, Mar. 26, 1949, 2, C.; latest, May 20, 1948, 1, Kimberlin Hts.

6—GREAT BLUE HERON (*Ardea herodias*). — P. R. Not known to breed in Knox County. Most of these herons are seen along the edge of Ft. L. L.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	23	9	4	7	2	2	6	20	44	9	35	22
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds Per Trip	0.9	0.5	0.2	0.1	—	0.1	0.2	0.5	1.3	0.5	1.3	1.3
No. of Trips Contacted	10	6	3	3	2	1	4	13	12	5	12	6
% of Trips Contacted	40	32	11	6	5	3	12	31	36	25	46	35

7—COMMON EGRET (*Casmerodius albus*). — Sp. and F. M. and Su. V. This species is not often observed in the spring, but is seen frequently in Aug. and Sept. Earliest spring record, Apr. 24, 1935, 1, A. J. L., (W.M.W.), (Jas. Trent, Migrant, 6:27). There are a few additional records for Apr., a few for May, and one June record for a bird last seen on June 7, 1950, Ft. L. L., B. Crouch, (J.T.T., Migrant, 21:52). Latest fall record, Sept. 26, 1954, 1, Ft. L. L. (T.O.S. records, lacking the name of the observer, show this species occurring through Oct. 20). Largest number, Aug. 31, 1951, 50 seen by Bob Scott, (J.T.T., Migrant 22:47).

Abundance: Based on 86 trips between July 9 and Sept. 10.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds							1	21	12			
No. of Trips							11	42	33			
Per Trip							0.1	0.5	0.4			
No. of Trips Contacted							1	5	3			
% of Trips Contacted							9	12	9			

8—LITTLE BLUE HERON (*Florida Caerulea*). — Su. V. and probable Sp. M. "In late summer the almost pure white Little Blue Herons arrive . . ." (Jas. Trent, Migrant, 6:27). Earliest summer records: July 4, 1935, 4, A. J. L. (W.M.W.); July 4, 1949, 1, Kimberlin Hts. Latest fall record, Sept. 21, 1948, 2, C. There are a number of additional records of from one to six individuals during July and Aug. This species has been reported in Apr. and May, although there is no record which completely fulfills the requirements we have adopted. See photograph (Migrant, 7:67).

9—GREEN HERON (*Butorides virescens*). — Su. R. One late fall record, Nov. 21, 1937, A. J. L., (E.O.H.) (W.M.W., Migrant, 8:86). Average earliest spring record, Apr. 8; earliest, Mar. 14, 1948, 1, B. Crouch. Average latest fall record, Sept. 21; latest, Sept. 29, 1935, 1, A. J. L., (W.M.W.). Reproduction: May 20, 1951, P., nests in buttonwood bushes, 3 to 5 ft. up, 3N-3E; 1N-3Y, 1E; June 17, 1951, P., 5Y (not in one nest).

Abundance: Based on 220 trips between Apr. 8 and Sept. 21.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				9	27	35	18	27	15			
No. of Trips				38	44	38	33	42	25			
Per Trip				0.2	0.6	0.9	0.5	0.6	0.6			
No. of Trips Contacted				8	18	16	13	16	11			
% of Trips Contacted				21	41	42	39	38	44			

10—BLACK-CROWNED NIGHT HERON (*Nycticorax nycticorax*). — Su. R. Not known to breed in Knox County. June 21, 1952, 1, Knoxville. On June 22, 1952, a small colony of breeding birds was located on Jones Bend on the Blount County side of Ft. L. L. Earliest spring record, Apr. 13, 1935, 3, A. J. L., (W.M.W.) (W.M.W., Migrant, 6:38). Latest fall record, Aug. 15, 1948, 1, Stock Creek. A night heron of some species was heard Sept. 25, 1955, Lynchurst Cemetery.

11—YELLOW-CROWNED NIGHT HERON (*Nyctanassa violacea*). — Sp. M. Earliest spring record, Apr. 13, 1935, 1, A. J. L., (W.M.W.). Additional

records: May 16, 1955, 1, near Wright's Switch; May 21, 1952, 2, heard and seen flying over a small stream near Ball Camp may have been a nesting pair.

12—AMERICAN BITTERN (*Botaurus lentiginosus*). — Sp. and F. M. Earliest spring record, Apr. 8, 1950, 1, P; latest spring record, May 27, 1937, 1, A. J. L., (W.M.W.). Earliest fall record, Sept. 9, 1956, 1, Boyd's Bridge Pike, Dick Laurence; latest fall record, Nov. 20, 1938, 1, A. J. L., (W.M.W.) and Nov. 20, 1949, 1, G. F.

13—LEAST BITTERN (*Ixobrychus exilis*). — Su. R. Not known to breed in Knox County. Earliest spring record, April, 20, 1953, 1, U. T. Campus. Latest fall record, Oct. 10, 1937, 1, A. J. L., (W.M.W.) (W.M.W., Migrant, 8:87). June 23, 1950, one was flushed at Powell Station from a small marsh. No nest could be found.

14—WOOD IBIS (*Mycteria americana*). — Ac. Apr. 16, 1937, a Wood Ibis was shot at Cedar Bluff and reported to H. P. Ijams, (W.M.W., Migrant, 8:41).

15—WHITE IBIS (*Eudocimus albus*). — Ac. On July 29, 1949, four immature birds were flushed from a small pond near P. by Isabel H. Tipton and J. C. Howell, (Migrant, 20:50-51). They remained in the vicinity for several weeks.

16—CANADA GOOSE (*Branta canadensis*). — W. R. Known from only a few records: Aug. 20, 1950, 1, Stock Creek, (J.T.T.) and (I.O.S.); Oct. 22, 1955, 225, C., Edward Manous and Jimmy Tucker. (See Snow Goose, below); Nov. 14, 1948, 30, I. H.; Dec. 10, 1950, 5, C.; Jan. 3, 1954, 60, Ft. L. L., (M.B.M.). This species should occur locally in Oct. and remain until Feb. or Mar. to judge from reports of local hunters, who have heard migrating flocks passing overhead at night.

17—SNOW GOOSE AND BLUE GOOSE (*Anser caerulescens*). — V. Color phase, Snow Goose: Oct. 22, 1955, 6, flying low overhead with a flock of 225 Canada Geese, C., Edward Manous and Jimmy Tucker (J.T.T., Migrant, 27:18).

Color phase, Blue Goose: An immature one killed on Tennessee River near Knoxville, Nov. 21, 1936, was mounted by (E.O.H.) (Editor's note, Migrant, 9:18). A goose, probably a Blue Goose, was reported at Stock Creek Aug. 20, 1950, by (J.T.T.) (J.T.T., Migrant, 21:52).

18—MALLARD (*Anas platyrhynchos*). — W. R. Earliest fall record, Oct. 24, 1937, 1, A. J. L., (W.M.W.). Latest spring record, Apr. 13, 1935, 3, A. J. L., (W.M.W.).

Abundance: Based on 111 trips between Nov. 14 and Apr. 3.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	60	0	63	5							6	65
No. of Trips	25	19	27	6							17	17
Birds per Trip	2.4	0	2.3	0.8							0.4	3.8
No. of Trips Contacted	2	0	4	1							1	5
% of Trips Contacted	8	0	15	17							6	29

19.—BLACK DUCK (*Anas rubripes*). — W. R. Earliest fall record, Oct. 5, 1947, 2, Holston River opposite John Sevier. Latest spring record, Apr. 1, 1939, 2, A. J. L., (W.M.W.). A duck possibly a Black Duck, was observed at A. J. L. on July 24 and Aug. 7, 1938, (W.M.W., Migrant, 9:67). Perhaps this was a cripple.

Abundance: Based on 135 trips between Oct. 5 and Apr. 3.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		57	2	31	4					2	13	124
No. of Trips		25	19	27	6					15	26	17
Birds per Trip		2.3	0.1	1.1	0.7					0.1	0.5	7.3
No. of Trips Contacted		4	1	2	1					1	2	8
% of Trips Contacted		16	5	7	17					7	8	47

20—GADWALL (*Anas strepera*). — W. R. Earliest fall record, Sept. 29, 1935, 5, A. J. L., (W.M.W.). Latest spring record, Apr. 5, 1936, 2, A. J. L., (W.M.W.). Additional records: Dec. 25, 1950, 3, C.; Feb. 5, 1950, 1, C.; Mar. 15, 1953, 10, C.; Mar. 20, 1949, 3, Maloney Road.

21—PINTAIL (*Anas acuta*). — W. R. Earliest fall record, Nov. 13, 1947, 5, G. F. Latest spring record, Apr. 16, 1939, 2, A. J. L., (W.M.W.). Additional records: Nov. 19, 1939, 3, A. J. L., (W.M.W.); Dec. 25, 1950, 1, C.; Jan. 5, 1935, 3, A. J. L., (W.M.W.); Jan. 17, 1935, 27, A. J. L., (W.M.W.); Mar. 13, 1937, 1, A. J. L., (W.M.W.). A bird reported seen at A.J.L. July 14, 1939, (W.M.W., Migrant, 10:58) may have been a cripple.

22—GREEN-WINGED TEAL (*Anas carolinensis*). — W. R. Earliest fall record, Oct. 14, 1935, 1, A. J. L., (W.M.W.). Latest spring record, Apr. 26, 1937, 3, A. J. L., (W.M.W.). The following additional records are by (W.M.W.) at A. J. L.: Nov. 7, 1937, 6; Dec. 29, 1938, 1; Apr. 10, 1937, 3. Neither of us has personally seen this species in Knox County.

23—BLUE-WINGED TEAL (*Anas discors*). — Sp. and F. M., rare W. R. Average earliest spring record, Mar. 27; earliest, Feb. 19, 1938, 2, A. J. L., (W.M.W.). Average latest spring record, May 8; latest, May 10, 1949, 5, P. Average earliest fall record, Sept. 17, earliest, Sept. 6, 1952, 4, Baum's Lake. Average latest fall record, Oct. 5; latest, Nov. 20, 1938, 7, A. J. L., (W.M.W.). Mr. Walker observed one Jan. 5, 1935, on A. J. L. We have no personal winter records for this species in Knox County and our earliest spring date is Mar. 26, 1950, 2, C.

Abundance: Based on 114 trips between Mar. 27 and May 8, and Sept. 17 and Oct. 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds			7	56	15				4	17		
No. of Trips			7	48	20				33	6		
Birds per Trip			1.0	1.2	0.8				0.1	2.8		
No. of Trips Contacted			2	6	2				2	1		
% of Trips Contacted			29	13	10				6	17		

Unusually large number: Sept. 30, 1956, 400, Stock Creek, (J.T.T.).

24—AMERICAN WIDGEON (*Mareca americana*). — Sp. and F. M. May be expected to occur during the winter. Average earliest spring record, Mar. 12; earliest, Mar. 8, 1936, 2, A. J. L., (W.M.W.). Average latest spring record, Apr. 12; latest, Apr. 29, 1951, 1, G. F. Earliest fall record, Nov. 7, 1948, 2, C.; latest fall record, Nov. 23, 1947, 3, C.

25—SHOVELER (*Spatula clypeata*). — Sp. and F. M. Earliest spring record, Mar. 12, 1950, 30, C.; latest spring record, Apr. 14, 1935, 1, A. J. L., (W.M.W.). One fall record, Sept. 30, 1956, 11, Stock Creek, (J.T.T.). Additional records: Mar. 26, 1950, 20, C.; Apr. 1, 1939, 5, A. J. L., (W.M.W.); Apr. 4, 1936, 4, U.T.C.F., (W.M.W.); Apr. 13, 1935, 5, A.J.L., (W.M.W.).

26—WOOD DUCK (*Aix sponsa*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		2	2	6	3	17	3	0	1	0	6	0
No. of Trips		25	19	27	48	44	38	33	42	33	20	26
Birds per Trip		0.1	0.1	0.2	0.1	0.4	0.1	0	—	0	0.3	0
No. of Trips Contacted		1	1	2	2	6	1	0	1	0	1	0
% of Trips Contacted		4	5	7	4	14	3	0	2	0	5	0

Reproduction: May 1, 1949, female, 12 Y, Bullrun Creek; May 12, 1949, 2 broods Y, G. F.

27—REDHEAD (*Aythya americana*). — Sp. M. May be expected in the fall. Known from the following records: Feb. 27, 1936, 3, A. J. L. (W.M.W.); Mar. 12, 1950, 75, C.; Mar. 15, 1953, 1, C.; Mar. 24, 1954, 2, Baum's Lake.

28—RING-NECKED DUCK (*Aythya collaris*). — W. R. Earliest fall record, Oct. 30, 1949, 8, C. Latest spring record, Apr. 14, 1935, 2, A. J. L., (W.M.W.). We have records as early in the spring as Feb. 6, 1951, C., (A.J.M.), and as late in the fall as Dec. 15, 1935, 1, A. J. L., (W.M.W.). One wintered on Fountain City Lake in 1951-52, (J.T.T., Migrant, 23:12).

29—CANVASBACK (*Aythya valisineria*). — W. R. Earliest fall record, Sept. 29, 1935, 12, A. J. L., (W.M.W.). Latest spring record, Mar. 17, 1954, 1, Lynnhurst Cemetery, J. B. Owen. This bird was there continuously from Mar. 1-17. Additional records: Jan. 3, 1936, 3, U. T. C. F., (W.M.W.); Jan 25, 1953, 5, C.; Feb. 11, 1951, 7, C.

30—GREATER SCAUP (*Aythya affinis*). — W. V. Known from a single record. Feb. 20, 1957, 1, Carl Cruze farm, near Martel. A male was shot by a hunter on a small temporary pond. This species may be commoner than this record indicates since it is difficult to separate in the field from the Lesser Scaup.

31—LESSER SCAUP (*Aythya affinis*). — W. R. Earliest fall record, Oct. 31, 1937, 7, A. J. L., (W.M.W.). Latest spring record, May 10, 1949, 3, C. (One seen June 25, 1949, F. C., was presumably a crippled individual). A Lesser Scaup, probably also a cripple, lived all winter, 1949-50, on a small pond in F. C., (J.T.T., Migrant, 21:14). A male seen May 30-31, 1950, at Robinson's, was also a cripple, although able to fly for a short distance. Additional records are numerous for the months of Nov., Mar., and Apr.; and few for Dec., Jan., and Feb.

32—AMERICAN GOLDEN-EYE (*Bucephala clangula*). — W. R. Earliest record, Jan. 3, 1936, 3, U. T. C. F., (W.M.W.); latest, Apr. 9, 1949, 1, Strawberry Plains Pike. Most of our records are for Jan. and Feb. The largest number reported on a particular date was 18 seen on Feb. 6, 1951, C., (A.J.M.).

33—BUFFLE-HEAD (*Bucephala albeola*). — W. R. Earliest fall record, Nov. 18, 1951, 7, Ft. L. L. Latest spring record, Mar. 15, 1953, 1, C. We have seen

this species on only eight dates during the months between the dates given above. The largest number seen was 11 on both Nov. 30, 1952, C., and Jan. 24, 1954, C.

34—OLD SQUAW (*Clangula hyemalis*). — Ac. Feb. 10, 1935, 1, A. J. L., (W.M.W.); Feb. 12, 1934, male taken near Mascot is recorded by S.A.O. in his notebook list of specimens.

35—WHITE-WINGED SCOTER (*Melanitta deglandi*). — Ac. Dec. 23, 1932, one shot on French Broad River near H. P. Ijams' home, (H.P.I., Migrant, 4:9); Jan. 24, 1954, 9, C., Richard Lorenz, (J.T.T., Migrant, 25:17).

36—RUDDY DUCK (*Oxyura jamaicensis*). — Sp. and F. M. Winter records for this species may be anticipated. Earliest fall record, Nov. 7, 1948, 18, Ft. L. L.; latest Nov. 30, 1952, 4, C. Earliest spring record, Apr. 2, 1950, 22, C.; latest, Apr. 13, 1935, 3, A.J.L., (W.M.W.). One other spring record, Apr. 5, 1952, 2, C., (A.J.M.). We have records for five dates in Nov., the largest number reported being 18.

37—HOODED MERGANSER (*Lophodytes cucullatus*). — W. R. Average earliest fall record, Nov. 17; earliest, Nov. 8, 1953, 5, C. Average latest spring record, Apr. 13; latest, Apr. 27, 1941, 1, I. H., (W.M.W.).

Abundance: Based on 121 trips between Nov. 17 and Apr. 13.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	28	25	13	1							38	33
No. of Trips	25	19	27	19							14	17
Birds per Trip	1.1	1.3	0.5	0.1							2.7	2.0
No. of Trips Contacted	4	4	4	1							3	5
% of Trips Contacted	16	21	15	5							21	29

38—COMMON MERGANSER (*Mergus merganser*). — W. R. Earliest fall record, Nov. 11, 1939, 10, A. J. L., (W.M.W.). Latest spring record, Mar. 24, 1935, 2, A. J. L., (W.M.W.). We have only three personal records: Jan. 17, 1948, 20, C.; Feb. 3, 1951, 35, C.; Feb. 6, 1949, 6, C. There are nine other records all at A. J. L. in 1935 by (W.M.W.): Jan. 6, 8; Jan. 20, 7; Jan. 27, 13; Feb. 10, 9; Feb. 17, 9; Feb. 24, 9; Mar. 17, 5; Dec. 1, 1; and Dec. 14, 1.

39—RED-BREASTED MERGANSER (*Mergus serrator*). — Sp. M. Known from only one record, Mar. 31, 1949, 1, C.

40—TURKEY VULTURE (*Cathartes aura*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	54	87	149	220	78	81	91	95	148	170	230	17
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	2.2	4.6	5.5	4.6	1.8	2.1	2.8	2.3	4.5	8.5	8.8	1.0
No. of Trips Contacted	8	12	21	27	22	19	20	20	24	13	18	3
% of Trips Contacted	32	63	78	56	50	50	61	48	73	65	69	18

The number of birds per trip is higher during early spring and late fall because of the migrations taking place during those seasons.

41—BLACK VULTURE (*Coragyps atratus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	21	53	15	45	25	10	14	17	90	25	33	6
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.8	2.8	0.6	0.9	0.6	0.3	0.4	0.4	2.7	1.3	1.3	0.4
No. of Trips Contacted	5	7	5	13	5	5	7	7	5	4	6	3
% of Trips Contacted	20	37	19	27	11	13	21	17	15	20	23	18

Reproduction: June 25, 1952, N-2Y, 10 to 14 days old, H. M.

42—SHARP-SHINNED HAWK (*Accipiter Striatus*). — W. R. Average earliest fall record, Sept. 22; earliest, Sept. 17, 1950, I. P. Average latest spring record, April 12; latest, Apr. 26, 1936, I. U. T. C. F., (W.M.W.).

Abundance: Based on 161 trips between Sept. 22 and Apr. 12

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	2	0	1	1					1	2	3	1
No. of Trips	25	19	27	19					8	20	26	17
Birds per Trip	0.1	0	—	0.1					0.1	0.1	0.1	0.1
No. of Trips Contacted	2	0	1	1					1	2	3	1
% of Trips Contacted	8	0	4	5					13	10	12	6

43—COOPER'S HAWK (*Accipiter cooperii*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	7	5	10	38	16	9	12	12	16	9	18	9
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.3	0.3	0.4	0.8	0.4	0.2	0.4	0.3	0.5	0.5	0.7	0.5
No. of Trips Contacted	7	5	8	20	15	8	9	11	12	7	10	6
% of Trips Contacted	28	26	30	42	34	21	27	26	36	35	38	35

The increased number of Cooper's Hawks seen in Apr., Sept., Oct., and Nov., is due to the presence of migrating individuals.

Reproduction: May 10, 1949, 1, flushed from nest near Virtue. May 28, 1949, same nest found to contain 3 E.

44—RED-TAILED HAWK (*Buteo jamaicensis*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	23	14	10	14	4	7	7	2	8	9	31	8
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.9	0.7	0.4	0.3	0.1	0.2	0.2	—	0.2	0.5	1.2	0.5
No. of Trips Contacted	15	8	7	10	2	6	5	2	6	4	13	6
% of Trips Contacted	60	42	26	21	5	16	15	5	18	20	50	35

45—RED-SHOULDERED HAWK (*Buteo Lineatus*). — W. R. Records of this species for early fall and late spring seem, to us, to be open to question. Average earliest fall record, Nov. 18; earliest, Nov. 4, 1947, 1, Virtue. Average latest spring record, Mar. 16; latest, Mar. 19, 1948, 1, Kimberlin Hts., and Mar. 19, 1949, 1, H. M.

Abundance: Based on 87 trips between Nov. 18 and Mar. 16.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	1	0	2								4	3
No. of Trips	25	19	12								14	17
Birds per Trip	—	0	0.2								0.3	0.2
No. of Trips Contacted	1	0	2								4	3
% of Trips Contacted	4	0	17								29	18

46—BROAD-WINGED HAWK (*Buteo platypterus*). — Su R. Occurs in greater numbers in April and Sept. when it passes through in migration. Average earliest spring record, Apr. 5; earliest, Mar. 20, 1948, 1, H. M. Average latest fall record, Sept. 23; latest, Oct. 2, 1949, 3, U. T. C. F.

Abundance: Based on 221 trips between Apr. 5 and Sept. 23.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				161	21	8	6	5	165			
No. of Trips				39	44	38	33	42	25			
Birds per Trip				4.1	0.5	0.2	0.2	0.1	6.6			
No. of Trips Contacted				18	16	6	5	5	9			
% of Trips Contacted				46	36	16	15	12	36			

Additional records, large numbers: Apr. 9, 1949, 55, Thorngrove Pike; Apr. 11, 1948, 34, Riverside; Sept. 20, 1953, 51, H. M.; Sept. 24, 1950, 78, Thorngrove Pike; Sept. 27, 1953, 40, Dry Gap Pike. One reported Dec. 26, 1937, Knoxville, (S.A.O.) (Members, Migrant, 9:8).

47—BALD EAGLE (*Haliaeetus leucocephalus*). — P. R. Not known to breed in Knox County. Known from the following records: Jan. 1, 1949, 1, imm., U. T. C. F.; about Feb. 10, 1939, 1, imm., Riverdale, (W.M.W.); June 10, 1952, 1, Don Hurley; June 21, 1953, 1, imm., R. S., (J.T.T.); Aug. 22, 1948, 1, Vestal; Sept. 10, 1949, 2, Ft. L. L.; Sept. 25, 1955, 2 (1 adult, 1 imm.) near Topside; Sept. 28, 1947, 1, imm., I. H.; Oct. 10, 1953, 1, C., Richard Lorenz; Nov. 8, 1947, 1, imm., H. M.

48—MARSH HAWK (*Circus cyaneus*). — W. R. Average earliest fall record, Oct. 15; earliest, Sept. 24, 1947, 1, C. Average latest spring record, Apr. 23; latest, May 15, 1955, 1, Byington.

Abundance: Based on 153 trips between Oct. 15 and Apr. 23.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		7	8	5	9					5	16	8
No. of Trips		25	19	27	30					9	26	17
Birds per Trip		0.3	0.4	0.2	0.3					0.6	0.6	0.5
No. of Trips Contacted		5	5	4	6					3	8	7
% of Trips Contacted		20	26	15	20					33	31	41

One reported July 16, 1950, B. Crouch and D. W. Yambert (J.T.T., Migrant, 21:52).

49—OSPREY (*Pandion haliaetus*). — Sp. and F. M. One nesting attempt. Earliest spring record, Mar. 31, 1949, 1, Ft. L. L.; latest, May 1, 1955, 1, A. J. L., (W.M.W.). Earliest fall record, July 23, 1949, 1, C.; latest, Oct. 22, 1949, 1, Virtue. Between 1947 and 1953, I, (J.C.H.) observed 15 birds in the spring and ten in the fall.

Reproduction: An account of a nest built at A. J. L. and blown out of the nest tree in Apr. 1937 is given by W. M. W. (W.M.W., Migrant, 8:53).

50—PEREGRINE FALCON (*Falco peregrinus*).—W. R. Formerly nested here. Sept. 22, 1940, 1, A. J. L., (W. M. W.); Sept. 25, 1955, 2, Topside; Oct. 9, 1938, 1, A. J. L., (W. M. W.); Oct. 13, 1935, 1, A. J. L., (W. M. W.) (W. M. W., Migrant, 6:92); Nov. 28, 1935, 1, A. J. L., (W. M. W.); Dec. 6, 1947, 2, near Byington; Jan. 23, 1949, 1, G. F.; Mar. 18, 1939, 1, A. J. L., (W. M. W.); Apr. 10, 1937, 1, A. J. L., (W. M. W.); Apr. 11, 1948, 1, Riverside; Apr. 30, 1951, 1, (W. M. J.). A. E. Ganier reports a Knoxville record of three eggs Apr. 4, 1894; and the nestings of a pair on Paint Rock Cliff between 1920 and 1930, "Notes on Tennessee Birds of Prey," (Migrant, 11:1-4).

51—SPARROW HAWK (*Falco sparverius*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	39	37	61	42	42	58	39	37	25	7	51	32
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	1.6	1.9	2.3	0.9	1.0	1.5	1.2	0.9	0.8	0.4	2.0	1.9
No. of Trips Contacted	18	16	19	26	26	29	19	19	14	5	20	13
% of Trips Contacted	72	84	70	54	59	76	58	45	42	25	77	76

W. M. W., tells of a young Sparrow Hawk being caught in Science Hall at U. T. June 10, 1938, and another brood learning to fly Aug. 26. "These hawks have nested in Science Hall Tower for the past four years." (Migrant, 9:67). June 16, 1946, see note under Crested Flycatcher, No. 108.

52—RUFFED GROUSE (*Bonasa umbellus*). — P. R. Jan. 7, 1950, 3, R. S., Sumner Dow; Nov. 24, 1949, R. S., one killed by hunter; specimen prepared by J. C. H.

53—BOBWHITE (*Colinus virginianus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	7	1	0	91	218	242	228	76	75	8	24	22
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.3	0.1	0	1.9	5.0	6.4	6.9	1.8	2.3	0.4	0.9	1.3
No. of Trips Contacted	3	1	0	29	37	35	33	26	11	3	4	2
% of Trips Contacted	12	5	0	60	84	92	100	62	33	15	15	12

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	1	0	0	15	76	188	167	65	14	0	13	12
Number Singing	1	0	0	12	70	176	155	46	1	0	2	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

54—SANDHILL CRANE (*Grus canadensis*). — V. Mar. 25, 1954, "Four Sandhill Cranes were reported by Brockway Crouch, seen flying and heard calling near Knoxville." (J. C. H. and J. T. T., Migrant, 25:54). This species has been reported a number of times in Anderson County.

55—KING RAIL (*Rallus elegans*). — Su. R. One winter record. Earliest spring record, Apr. 9, 1949, 1, Trentville. Latest fall record, Sept. 17, 1949, 1, P. On Dec. 24, 1940 an emaciated King Rail was found at F. C. It soon died and was mounted by E. O. H., (W. M. W., Migrant, 12: 18). Between 1947 and 1953, I, (J. C. H.) saw in all, 28 King Rails. These were all in small marshes, none being inhabited by more than two pairs. Reproduction: Apr. 22, 1950, two new nests, P., one containing one egg. Apr. 29, 1951, N-5 E, Bullrun Creek, near Dry Gap, (Anon., Migrant 22:27); May 1, 1949, 12 E, P.; May 10, 1949, 11 E, P.; May 12, 1949, 7 piped E, P.; June 22, 1952, 2 adults, 6 Y, near Virtue, (M. B. M.); July 1, 1951, 1 adult 4 Y about 3/4 grown 2 miles S. W. of H. M.

56—VIRGINIA RAIL (*Rallus limicola*). — Sp. and F. M. Known from the following records: Apr. 22, 1950, 2, P.; May 9, 1948, 1, P.; July 16, 1950, 1, P., B. Crouch and D. W. Yambert, (J. T. T., Migrant 21:52). This latter record is most unusual, and may be of a crippled bird or possibly a young King Rail. Sept. 25, 1955, 1, Ft. L. L.; Nov. 16, 1955, 1 immature, F. C., J. B. Owen.

57—SORA (*Porzana carolina*). — Sp. and F. M. May 3, 1953, 1, P.; May 7, 1950, 1, P., Sept. 27, 1953, 2, Topside, J. T. T., (J. T. T., Migrant, 24:58); Oct. 3, 1937, 1, I. H., (W. M. W.) and group.

58—COMMON GALLINULE (*Gallinula chloropus*). — Su. R. Not known to breed in Knox County. Apr. 24, 1953, 1, I. H., (M.B.M.); May 20, 1953, 1,

A. J. L., John Sonner; June 25, 1950, 1, F. C.; July 1, 1950, 1, F. C.; Oct. 18, 1953, 1, G. F.

59—AMERICAN COOT (*Fulca americana*). — W. R. One summer record. This species is most common in late Oct. and Nov. Oct. 13, 1935, 1, A. J. L., (W. M. W.); Oct. 18, 1953, 1, Baum's Lake; Nov. 7, 1948, 1000, C.; Nov. 21, 1954, 100, C. A few remain throughout the winter, but the number recorded in Mar. and Apr. is greater. Largest number of individuals on spring date, Apr. 13, 1935, 75, A. J. L., (W. M. W.). July 8 and 29, 1939 a single bird reported on A. J. L., (W. M. W., Migrant, 10:58) may well have been a crippled individual.

60—PIPING PLOVER (*Charadrius melodus*). — F. V. Known from a single record, Aug. 17, 1952, 1, in rain-soaked freshly ploughed field on Sterchi Farm near Dry Gap.

61—SEMIPALMATED PLOVER (*Charadrius semipalmatus*). — F. M. Known from the following records: Aug. 21, 1949, 1, Strong Farm; Aug. 31, 1940, 1, A. J. L., (W. M. W.), (W. M. W., Migrant, 11:78); Sept. 6, 1952, 1, Baum's Lake; Sept. 18, 1932, 1, Baker's Shoals, (H. P. L., Migrant, 4:9), also (Jas. Trent, Migrant, 6:30); Sept. 25, 1955, 1, P.

62—KILLDEER (*Charadrius vociferus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	89	121	312	213	156	145	171	357	298	173	543	98
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	3.6	6.4	11.6	4.4	3.5	3.8	5.2	8.5	9.0	8.7	20.9	5.8
No. of Trips Contacted	13	19	22	35	32	32	24	34	27	14	24	10
% of Trips Contacted	52	100	81	73	73	84	73	81	82	70	92	59

Reproduction: Mar. 13, 1949, 3 Killdeer eggs deserted on ploughed field, C.; Mar. 27, 1949, Killdeer apparently incubating eggs 100 ft. from Hardin Valley Road, nest on slight, one-inch mound in pasture. Apr. 9, 1952, 1 Y about 7 days old. May 5, 1932 ". . . one of our scouts found a Killdeer's nest with 7 eggs at the point of hatching; since 4 is the usual maximum number, it is likely that two females laid in this nest." (H. P. L., Migrant, 3:29, 30).

63—BLACK-BELLIED PLOVER (*Squatarola squatarola*). — F. V. Known from a single record, Oct. 6, 1932, 1, shot four miles east of Knoxville, (H. P. L., Migrant, 3:48).

64—AMERICAN WOODCOCK (*Philohela minor*). — P. R. Known from the following records: Feb. 28, 1 and Mar. 2, 1940, 2 in flight song, F. C., (W. M. W.), (W. M. W., Migrant, 11: 28); Mar. 3, 1943, one dead bird found, Knoxville, Henry Meyer, (H. Meyer, Migrant, 14:14); Apr. 22, 1950, 1 adult, 3 Y, P., (J. C. H.) (J. T. T., Migrant, 21:52); Apr. 29, 1956, 2, P., S. R. Tipton; Apr. 30, 1931, recently deserted N-4 E, (J. Bamberg, Migrant, 4:22); May 2, 1931, adult, N-4 fresh E (above citation); May 3, 1953, 1, B. Crouch, (Anon., Migrant, 24:34); May 20, 1950, 1, P., (J. T. T., Migrant, 21:52).

65—COMMON SNIPE (*Capella gallinago*). — W. R. Average earliest fall record, Sept. 15; earliest, Sept. 12, 1948, 1, P. Average latest spring record, Apr. 29; latest, May 6, 1951, 1, P. Winter records: Dec. 10, 1949, 1, P.; Dec. 19, 1954, 3, Byington; Jan. 9, 1955, 15, Farragut; Jan. 16, 1955, 3, Blue Grass. This species is less common in the fall than in the spring. Presumably this is because the ground tends to be dry in the fall, making it difficult for these birds to feed.

Abundance: Based on 197 trips between Sept. 15 and Apr. 29.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				121					1	1	3	0
No. of Trips	25	19	27	45					18	20	26	17
Birds per Trip	0	0.2	2.3	2.7					0.1	0.1	0.1	0
No. of Trips Contacted	0	2	7	13					1	1	2	0
% of Trips Contacted	0	11	26	29					6	5	8	0

66—UPLAND PLOVER (*Bartramia longicauda*). — Sp. M. Known from a single record, Apr. 4, 1952, 1, singing and seen, Bullrun Creek near Dry Gap.

67—SPOTTED SANDPIPER (*Actitis macularia*). — Sp. and F. M. Average earliest spring record, May 1; earliest, Apr. 17, 1949, 1, C. Average latest spring record, May 24; latest, May 30, 1948, 1, C. Average earliest fall record, July 18; earliest, July 15, 1948, 1, H. M. Average latest fall record, Sept. 22; latest, Oct. 29, 1939, 1, I. H., (W. M. W.).

Abundance: Based on 118 trips between May 1 and May 24, and July 18 and Sept. 22.

	May 1-24	July 18-Sept. 22
No. of Birds	25	20
No. of Trips	37	81
Birds per Trip	0.7	0.2
No. of Trips Contacted	16	12
% of Trips Contacted	43	15

68—SOLITARY SANDPIPER (*Tringa solitaria*). — Sp. and F. M. Average earliest spring record, Apr. 23; earliest, Apr. 6, 1952, 1, P. Average latest spring record, May 13; latest, May 23, 1948, 1, near H. M. Average earliest fall record, Aug. 17; earliest, July 29, 1949, 1, P. Average latest fall record, Sept. 18; latest, Oct. 20, 1947, 1, A. J. L., (J. T. T.).

Abundance: Based on 82 trips between Apr. 23 and May 13, and Aug 17 and Sept. 18.

	Apr. 23-May 13	Aug. 17-Sept. 18
No. of Birds	74	9
No. of Trips	42	40
Birds per Trip	1.8	0.2
No. of Trips Contacted	21	5
% of Trips Contacted	50	13

77—RING-BILLED GULL (*Larus delawarensis*). — W. R. Average earliest fall record, Nov. 19; earliest, Nov. 7, 1948, I, C. Average latest spring record, Apr. 17; latest, May 10, 1949, I, C.

Abundance: Based on 124 trips between Nov. 19 and Apr. 17.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	73	38	205	46							80	132
No. of Trips	25	19	27	23							13	17
Birds per Trip	2.9	2.0	7.6	2.0							6.2	7.8
No. of Trips Contacted	7	2	8	5							4	3
% of Trips Contacted	28	11	30	22							31	18

78—LAUGHING GULL (*Larus atricilla*). — Ac. Sept. 18, 1932, 6, Baker's Shoals on the Tennessee River. "Here we had the pleasure of watching a flock of six Laughing Gulls, . . . and on account of their unexpected presence here, we collected a specimen which was mounted by S. A. Ogden for our collection. It was sent to the Biological Survey where Mr. A. H. Howell verified the identification." (H. P. I., Migrant, 4:9).

79—BONAPARTE'S GULL (*Larus philadelphia*). — Sp. and F. M. Mar. 20, 1955, 3, C.; Apr. 2, 1950, 1, C.; Apr. 13, 1952, 1, Richard Lorenz; May 1, 1955, 1, Ft. L. L., Don Hurley, (Mrs. E. E. Overton, Migrant 26:26); Nov. 21, 1948, 1, C.

80—FORSTER'S TERN (*Sterna forsteri*). — Sp. M. Apr. 27, 1922, tern shot at Hodges' Pond ten miles west of Knoxville, identified by H. C. Oberholser, (A. F. G., Migrant, 5:31). Apr. 30, 1933, another specimen taken on Tennessee River was identified by U. S. Biol. Survey, (A. F. G., Migrant, 5:31). May 11, 1934, female collected from a flock of ten, Knoxville, (Jim Trent, Jr., Migrant, 5:31).

81—COMMON TERN (*Sterna hirundo*). — Sp. and F. M. May 15, 1949, 3, Boyd's Station; Oct. 20, 1947, 1, immature, A. J. L., (J. T. T.).

82—SOOTY TERN (*Sterna fuscata*). — Ac. June 20, 1934, 1, picked up by Mrs. McDaniel in her Knoxville yard, died shortly after, and was mounted by (E. O. H.) for the E. T. O. S. collection, (H. P. I., Migrant, 5:46).

83—BLACK TERN (*Chlidonias niger*). — F. M. July 30, 1938, 1, A. J. L., (W. M. W.), (W. M. W., Migrant, 9:67); Aug. 21, 1949, 1, C., Aug. 31, 1952, 11, C.; Sept. 5, 1954, 1, C.; Sept. 9, 1948, 30, C.; Sept. 19, 1949, 1, C.

84—ROCK DOVE (*Columba livia*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	10	8	0	10	36	5	0	0	31	0	15	8
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.4	0.4	0	0.2	0.8	0.1	0	0	0.9	0	0.6	0.5
No. of Trips Contacted	2	2	0	2	4	1	0	0	3	0	1	1
% of Trips Contacted	8	11	0	4	9	3	0	0	9	0	4	6

85—MOURNING DOVE (*Zenaidura macroura*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	384	437	351	664	535	824	947	1267	487	251	876	251
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	15.4	23.0	13.0	13.8	12.2	21.7	28.7	30.2	14.8	12.6	33.7	14.8
No. of Trips Contacted	21	17	27	47	39	34	30	41	27	12	22	11
% of Trips Contacted	84	89	100	98	89	89	91	98	82	60	85	65

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	85	293	192	180	185	700	865	995	275	173	390	193
Number Singing	0	8	14	27	19	48	63	54	1	0	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Early singing records: Dec. 17, 1956, 1, Inskip; Jan. 20, 1952, heard for the first time this year; Jan. 21, 1953, heard first time this year. Reproduction: Mar. 17, 1953, pair building on U. T. Campus, (J. T. T., Migrant, 24: 15). Apr. 9, 1949, N-2 E about one week advanced, 7 ft. up in bush, Strawberry Plains Pike.

86—YELLOW-BILLED CUCKOO (*Coccyzus americanus*). — Su. R. Average earliest spring record, May 3; earliest, April 23, 1938, 1, A. J. L., (W.M.W.). Average latest fall record, Oct. 5; latest, Oct. 18, 1947, 2, U. T. C. F., and Oct. 18, 1949, 1, S. H., (M. B. M.).

Abundance: Based on 193 trips between May 3 and Oct. 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds						141	129	126	90	29	2	
No. of Trips						41	38	33	42	33	6	
Birds per Trip						3.4	3.4	3.8	2.1	0.9	0.3	
No. of Trips Contacted						31	37	31	30	16	2	
% of Trips Contacted						76	97	94	71	48	33	

Reproduction: May 28, 1949, N-2E, U. T. C. F., 9 ft. up on horizontal branch of honeysuckle-covered elm sapling.

87—BLACK-BILLED CUCKOO (*Coccyzus erythrophthalmus*). — Sp. and F. M. Earliest spring record, Apr. 27, 1942, 1, I. H., (M. B. M.); latest, May 26, 1954, Sterchi Farm. Only one fall record, Sept. 11, 1955, 1, Sharp's Ridge, (M. B. M.), (J. T. T.) and (T. O. S.) members. Additional spring records: Apr. 30, 1944, 1, S. H., (M. B. M.); May 1, 1943, 1, S. H. (M. B. M.); May 3, 1936, 1, I. H., (W. M. W.); May 5, 1935, 6, I. H., (W. M. W.); May 6, 1951, 1, P.; May 8, 1948, 1, S. H. (M. B. M.); May 12, 1949, one specimen collected, Knoxville; May 20, 1948, 1, U. T. C. F.; May 20, 1950, 1, Alan Zeigler.

88—BARN OWL (*Tyto alba*). — P. R. Apr. 30, 1933, 1, I. H., (spring census list furnished by H. P. I., Migrant, 4:15). May 3, 1936, 1, I. H., (W. M. W.); May 5, 1935, 1, I. H., (W. M. W.); Aug. 10, 1952, 1, Ft. L. L., (J. C. H.), (J. T. T., Migrant, 23:54); Nov. 12, 1937, 1, I. H., (H. P. I.), (W. M. W., Migrant, 8:86). Reproduction: May 1, 1932, I. H., (H. P. I.) "The Barn Owls were nesting as usual in the hollow sycamore tree on the island . . ." (H. P. I., Migrant, 3: 29). Early June 1931 Brockway Crouch flushed one of the owls from three eggs in a pot-hole near the top of Paint Rock Cliffs, eight miles east of Knoxville. (A. F. G., Migrant, 11:4). Nov. 20, 1943, ". . . a young Barn Owl recently from the nest, was captured by a hunter on the bluffs of the French Broad River near the east edge of Knox Co.," (W. M. W., Migrant, 14: 80).

89—SCREECH OWL (*Otus asio*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	0	1	2	1	3	1	0	1	1	0	0	2
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0	0.1	0.1	—	0.1	—	0	—	—	0	0	0.1
No. of Trips Contacted	0	1	2	1	3	1	0	1	1	0	0	2
% of Trips Contacted	0	5	7	2	7	3	0	2	3	0	0	12

Reproduction: May 4, 1947, N-5 Y, I. H., (Anon., Migrant, 18:25); June 21, 1947, 3 Y, perhaps four weeks old in mulberry tree, Tyson Park.

90—GREAT HORNED OWL (*Bubo virginianus*). — P. R. Four specimen records as follows: May 6, 1924, 1; Aug. 25, 1932, 1; Sept. 23, 1932, 1; Oct. 3, 1932, 1, (S. A. O., Migrant, 4:4). Feb. 17, 1952, 2, heard Maloney Hts., B. Crouch, (J. T. T., Migrant, 23:12). The following five records are all from a wooded rocky hill, S. H., (M. B. M.). Mar. 26, 1955, 1; May 26, 1950, about 9:00 a.m., 1, seen about 25 ft. up in a large oak, located by cawing of half a dozen crows; July 13, 1952, 2, hooting alternately at different pitches, on opposite sides of street, 1:00 to 3:00 a.m. Aug., 1944, 1, hooting many nights; Sept. 12, 1946, 1, hooting, midnight and on.

91—BARRED OWL (*Strix varia*). — P. R. Jan. 5, 1936, 1, I. H., (W. M. W.); Jan. 24, 1934, 1, P., (S. A. O.); Mar. 16, 29, 1954, 1, at feeding station of Mr. and Mrs. G. E. Albert, Sherrod Rd.; Mar. 21, 1932, 1, mounted, (S. A. O., Migrant, 4: 48); Apr. 7, 1940, adult, 3 Y, I. H., (W.M.W.); May 1, 1955, 1, Don Hurley, (Mrs. E. E. Overton, Migrant, 26:26); Nov. 21, 1925, 1, mounted, (S. A. O., Migrant, 4: 48); Nov. 28, 1921, mounted, (S. A. O., Migrant, 4:48); Dec. 16, 1933, specimen, Black Oak Ridge, (S. A. O.).

92—LONG-EARED OWL (*Asio otus*). — V. One record, Dec. 22, 1934, five miles south of Knoxville, mounted by (S. A. O.), (H. P. I., Migrant, 6:14).

93—SHORT-EARED OWL (*Asio flammeus*). — V. One record, Oct. 25, 1930, Knoxville, (E. O. H.), (female, no. 103, E. H.).

94—CHUCK-WILL'S WIDOW (*Caprimulgus carolinensis*). — Su. R. Earliest spring record, Apr. 12, 1948, 1, (M. B. M.). Latest summer record Aug. 1, 1948, 1, Vestal. This species is widely distributed and relatively common. Most of our records are for April and May. Few are contacted after they cease calling regularly.

95—WHIP-POOR-WILL (*Caprimulgus vociferus*). — Su. R. There are records by T. O. S. members for Mar. 17, 1950, 1; Mar. 19, 1949; Mar. 21, 1949, 1. Latest fall record, Sept. 18, 1949, 1, heard, Knoxville, B. Crouch. Additional records: Apr. 30, 1939, 1, I. H., (W. M. W.); May 1, 1949, 2, P.; May 3, 1936, 1, I. H., (W. M. W.); May 6, 1951, 2, P.; May 7, 1950, 3, P.; June 21, 1952, 1, J. B. Owen, (J. T. T., Migrant, 23:53).

96—COMMON NIGHTHAWK (*Chordeiles minor*). — Su. R. Average earliest spring record, Apr. 29; earliest, Apr. 23, 1948,* Apr. 23, 1953, 1, (J. T. T.). Average latest fall record, Sept. 28; latest, Oct. 19, 1953, 1, Mrs. E. E. Overton, (J. T. T., Migrant, 25:17). It is of interest that the latest fall record for years, other than 1953, came on Oct. 2, 1949, 1, U. T. C. F.

Abundance: Based on 198 trips between Apr. 29 and Sept. 28.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				1	42	30	44	83	277			
No. of Trips				8	44	38	33	42	33			
Birds per Trip				0.1	1.0	0.8	1.3	2.0	8.4			
No. of Trips Contacted				1	14	13	12	16	13			
% of Trips Contacted				13	32	34	36	38	39			

Singing: Based on 93 roadside census trips between Apr. 25 and Sept. 21.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				3	6	23	41	74	157			
Number Singing				3	6	14	18	1	0			
No. of Trips				4	10	20	22	27	10			

Earliest date on which calls were heard, Apr. 23, 1948,* moon watch. Latest date on which calls were heard, Aug. 7, 1948, 1, Kimberlin Heights.

97—CHIMNEY SWIFT (*Chaetura pelagica*). — Su. R. Average earliest spring record, Apr. 6; earliest, Mar. 20, 1949, 3, B. Crouch. Average latest fall record, Oct. 1; latest, Oct. 18, 1947, 5, U. T. C. F.

Abundance: Based on 229 trips between Apr. 6 and Oct. 1.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				639	1053	801	843	847	1422	25		
No. of Trips				38	44	38	33	42	33	1		
Birds per Trip				16.8	23.9	21.1	25.5	20.2	43.1	25.0		
No. of Trips Contacted				32	42	34	31	38	30	1		
% of Trips Contacted				84	95	89	94	90	91	100		

Reproduction: June 14, 1952, N with Y, Bob Scott.

98—RUBY-THROATED HUMMINGBIRD (*Archilochus colubris*). — Su. R. Average earliest spring record, Apr. 26; earliest, Apr. 15, 1936, 1, I. H., (W. M. W.). Average latest fall record, Sept. 26; latest, Oct. 18, 1953, 1, Inskip.

Abundance: Based on 198 trips between Apr. 26 and Sept. 26.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				24	65	54	90	104	49			
No. of Trips				11	44	38	33	42	30			
Birds per Trip				2.2	1.5	1.4	2.7	2.5	1.6			
No. of Trips Contacted				6	28	28	30	37	20			
% of Trips Contacted				55	64	74	91	88	67			

99—BELTED KINGFISHER (*Megasceryle alcyon*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	18	20	26	32	22	17	22	39	31	18	32	15
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.7	1.1	1.0	0.7	0.5	0.4	0.7	0.9	0.9	0.9	1.2	0.9
No. of Trips Contacted	9	12	16	20	16	11	15	22	16	11	16	8
% of Trips Contacted	36	63	59	42	36	29	45	52	48	55	62	47

100—YELLOW-SHAFTED FLICKER (*Colaptes auratus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	53	43	115	272	160	167	152	106	94	109	123	74
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	2.1	2.3	4.3	5.7	3.6	4.4	4.6	2.5	2.8	5.5	4.7	4.4
No. of Trips Contacted	21	15	24	45	42	37	32	35	25	19	24	14
% of Trips Contacted	84	79	89	94	95	97	97	83	76	95	92	82

Reproduction: April, 16, 1953, building nest, Tyson Park. Mr. Walker tells of Flickers nesting at I. H. Starlings attacked them frequently and finally took possession of the nesting hole. Three Flicker eggs were found on the ground. Several weeks later the Flickers returned, and this time drove off the Starlings, (W. M. W., Migrant, 18:11-12).

101—PILEATED WOODPECKER (*Dryocopus pileatus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	15	10	11	40	42	22	5	24	32	19	19	13
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.6	0.5	0.4	0.8	1.0	0.6	0.2	0.6	1.0	1.0	0.7	0.8
No. of Trips Contacted	9	7	7	26	31	18	5	17	20	12	11	6
% of Trips Contacted	36	37	26	54	70	47	15	40	61	60	42	35

102—RED-BELLIED WOODPECKER (*Centurus carolinus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	25	27	33	48	51	30	23	22	49	20	14	29
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	1.0	1.4	1.2	1.0	1.2	0.8	0.7	0.5	1.5	1.0	0.5	1.7
No. of Trips Contacted	13	13	19	27	27	17	19	15	22	13	11	9
% of Trips Contacted	52	68	70	56	61	45	58	36	67	65	42	53

Reproduction: Mr. Walker tells of Red-bellied Woodpeckers being evicted by Starlings from the nesting hole they had excavated in a black gum tree, Riverside Dr. When a second nesting hole was excavated, Starlings were seen waiting around (W. M. W., Migrant, 9:15).

103—RED-HEADED WOODPECKER (*Melanerpes erythrocephalus*). — P. R.
In some years most individuals depart in Sept. and do not return until Apr. (H. Meyer, Migrant, 16:32).

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	18	16	8	27	52	24	28	31	9	10	6	13
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.7	0.8	0.3	0.6	1.2	0.6	0.8	0.7	0.3	0.5	0.2	0.8
No. of Trips Contacted	8	8	6	15	26	13	16	10	6	4	5	5
% of Trips Contacted	32	42	22	31	59	34	48	24	18	20	19	29

These birds are most noisy during mid and late Sept., just prior to their departure on the fall migration. There is a prominent peak in numbers in May at the height of the spring migration.

104—YELLOW-BELLIED SAPSUCKER (*Sphyrapicus varius*). — W. R. Average earliest fall record, Oct. 14; earliest, Sept. 25, 1955, 1, Topside. Average latest spring record, Apr. 17; latest, Apr. 28, 1952, 1, S. H., (M. B. M.).

Abundance: Based on 148 trips between Oct. 14 and Apr. 17.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		7	2	10	5					6	13	5
No. of Trips		25	19	27	24					10	26	17
Birds per Trip		0.3	0.1	0.4	0.2					0.6	0.5	0.3
No. of Trips Contacted		6	2	7	5					1	12	4
% of Trips Contacted		24	11	26	21					10	46	24

105—HAIRY WOODPECKER (*Dendrocopos villosus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		5	0	2	3	3	4	1	0	5	2	3
No. of Trips		25	19	27	48	44	38	33	42	33	20	17
Birds per Trip		0.2	0	0.1	0.1	0.1	0.1	—	0	0.2	0.1	0.2
No. of Trips Contacted		2	0	2	2	3	4	1	0	5	2	3
% of Trips Contacted		8	0	7	4	7	11	3	0	15	10	18

Reproduction: Apr. 22, 1948, pair at nest, U. T. C. F.

106—DOWNY WOODPECKER (*Dendrocopos pubescens*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds		65	43	61	68	81	100	93	90	98	62	36
No. of Trips		25	19	27	48	44	38	33	42	33	20	17
Birds per Trip		2.6	2.3	2.3	1.4	1.8	2.6	2.8	2.1	3.0	3.1	2.1
No. of Trips Contacted		20	17	20	32	36	34	29	34	32	17	15
% of Trips Contacted		80	89	74	67	82	89	88	81	97	85	88

107—EASTERN KINGBIRD (*Tyrannus tyrannus*). — Su. R. Average earliest spring record, Apr. 23; earliest, Apr. 10, 1948, 1, C. Average latest fall record, Sept. 14; latest, Oct. 10, 1936, 1, A. J. L., (W.M.W.).

Abundance: Based on 180 trips between Apr. 23 and Sept. 4.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Trips				20	44	38	33	42	3			
No. of Birds				66	119	106	133	86	0			
Birds per Trip				3.3	2.7	2.8	4.0	2.0	0			
No. of Trips Contacted				15	29	28	25	27	0			
% of Trips Contacted				75	66	74	76	64	0			

108—GREAT CRESTED FLYCATCHER (*Myiarchus crinitus*). — Su. R. Average earliest spring record, Apr. 20; earliest, Apr. 11, 1948, 1, Riverdale. Average latest fall record, Sept. 9; latest, Sept. 20, 1936, 3, I. H., (W. M. W.) and Sept. 20, 1953, 1, H. M.

Abundance: Based on 190 trips between Apr. 20 and Sept. 19.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				51	196	95	43	11	5			
No. of Trips				23	44	38	33	42	10			
Birds per Trip				2.2	4.5	2.5	1.3	0.3	0.5			
No. of Trips Contacted				18	39	33	19	9	5			
% of Trips Contacted				78	89	87	58	21	50			

Singing: Based on 90 roadside census trips between Apr. 11 and Sept. 11.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				19	46	58	30	4	4			
Number Singing				18	40	47	18	3	4			
No. of Trips				6	10	20	22	27	5			

Earliest date on which calls were heard, Apr. 11, 1948, 1, Riverdale. Latest date on which calls were heard, Sept. 20, 1953, 1, H. M.

Reproduction: On June 16, 1946, a Sparrow Hawk took two young Crested Flycatchers at once, from a nesting box, carrying them about 200 ft. where it dropped them, being pursued by the parent Flycatchers and me. S. H., (M. B. M.), (M. B. M., Migrant, 17:29).

109—EASTERN PHOEBE (*Sayornis phoebe*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	23	40	192	224	211	186	168	162	118	97	52	31
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.9	2.1	7.1	4.7	4.8	4.9	5.1	3.9	3.6	4.9	2.0	1.8
No. of Trips Contacted	14	10	26	45	37	34	28	33	27	18	20	11
% of Trips Contacted	56	53	96	94	84	89	85	79	82	90	77	65

Reproduction: Apr. 22, 1950, N-4 E one week incubated, P.; Apr. 23, 1953, N., U. T. C. F.; May 9, 1950, N-1 E, U. T. C. F.; June 28, 1947, N-4 Y, large, U. T. C. F.

110—YELLOW-BELLIED FLYCATCHER (*Empidonax flaviventris*). — F. M. Sept. 16, 1954, one collected, Riverside Drive.

111—ACADIAN FLYCATCHER (*Empidonax virens*). — Su. R. Average earliest spring record, May 1; earliest, Apr. 29, 1950, 7, G. F., and Apr. 29, 1951, 2, P.; and Apr. 29, 1951, 3, G. F., and Apr. 29, 1951, 1, S. H., (M. B. M.). Average latest fall record, Sept. 2; latest, Sept. 20, 1953, 1, H. M.

Abundance: Based on 158 trips between May 1 and Sept. 2.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds					80	82	48	16	0			
No. of Trips					44	38	33	42	1			
Birds per Trip					1.8	2.2	1.5	0.4	0			
No. of Trips Contacted					23	25	17	3	0			
% of Trips Contacted					52	66	52	7	0			

Reproduction: May 29, 1949, new empty nest, ten ft. above Clinch Riv. and 30 ft. out from bank, on hanging vertical branch of red maple. June 8, 1948, 2 Y about 6 days old, H. M.

112—LEAST FLYCATCHER (*Empidonax minimus*). — Sp. and F. M. May 2, 1948, 1, I. H., (J. T. T.) (Spring Field Days, Migrant 19:21). Aug. 4, 1949, 1, Anderson. There is one other early fall record of this species, but as it is practically impossible to identify it in the field at this season without the aid of its voice, and there was no mention of the voice, we have omitted this record.

113—EASTERN WOOD PEWEE (*Contopus virens*). — Su. R. Average earliest spring record, Apr. 28; earliest, Apr. 23, 1938, 1, I. H., (W. M. W.). Average latest fall record, Oct. 4; latest, Oct. 18, 1947, 1, U. T. C. F.

Abundance: Based on 205 trips between Apr. 28 and Oct. 4.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds					10	246	189	253	430	152	4	
No. of Trips					10	44	38	33	42	33	5	
Birds per Trip					1.0	5.6	5.0	7.7	10.2	4.6	0.8	
No. of Trips Contacted					4	38	37	33	38	26	2	
% of Trips Contacted					40	86	97	100	90	79	40	

Reproduction: July 8, 1949, occupied nest, Tyson Park.

114—OLIVE-SIDED FLYCATCHER (*Nuttallornis borealis*). — Sp. M. May 15, 1949, 1, U. T. C. F.; May 18, 1953, 1, S. H., (M. B. M.) and Dick Laurence; May 23, 1954, 1, Nubbin Ridge Road, (M. B. M.); May 24, 1954, 1, Westland Drive; May 30, 1948, 2, Boyd.

115—HORNED LARK (*Eremophila alpestris*). — P. R. Many migrants are present during the winter.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	158	74	143	23	26	76	36	16	9	30	486	346
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	6.3	3.9	5.3	0.5	0.6	2.1	1.1	0.4	0.3	1.5	18.7	20.4
No. of Trips Contacted	10	11	14	13	12	11	3	3	6	4	10	13
% of Trips Contacted	40	58	52	27	27	29	9	7	18	20	38	76

Unusually large numbers: Feb. 8, 1936, 150, A. J. L., (W. M. W.); Dec. 22, 1936, 150, Xmas Census, Knoxville, (Members, Migrant, 7:11).

116—TREE SWALLOW (*Iridoprocne bicolor*). — Sp. and F. M. Earliest spring record, Mar. 20, 1953, 2, Virtue; latest spring record, May 5, 1948, 4, P. Additional records: Mar. 22, 1942, 1, A. J. L., (W. M. W.); Mar. 29, 1936, 2, A. J. L., (W. M. W.); Apr. 4, 1943, 3, A. J. L., (W. M. W.); Apr. 5, 1952, 3, Richard Lorenz; Apr. 13, 1940, 17, A. J. L., (W. M. W.); Apr. 16, 1949, 6, S. H., (M. B. M.); Apr. 17, 1949, 5, C.; Apr. 18, 1937, 1, A. J. L., (W. M. W.); Apr. 22, 1950, 2, P.; Apr. 24, 1949, 3, C.; May 1, 1938, 2, I. H., (W. M. W.); Fall record, Sept. 4, 1948, 2, Asbury.

117—BANK SWALLOW (*Riparia riparia*). — Sp. and F. M. Four records only: Apr. 22, 1950, 5, P.; Apr. 30, 1945, 2, I. H., L. R. Herndon, E. T. O. S. Spring Census; Sept. 4, 1948, 3, Asbury; Sept. 6, 1948, 1, Kimberlin Heights.

118—ROUGH-WINGED SWALLOW (*Stelgidopteryx ruficollis*). — Su. R. Average earliest spring record, Apr. 1; earliest, Mar. 26, 1950, 1, C. Average latest fall record Aug. 19; latest, Oct. 17, 1954, 30, G. F., (M. B. M. and T. O. S.).

Abundance: Based 189 trips between Apr. 1 and Aug. 19.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				102	194	144	33	7				
No. of Trips				48	44	38	33	26				
Birds per Trip				2.1	4.4	3.8	1.0	0.3				
No. of Trips Contacted				30	34	22	7	4				
% of Trips Contacted				63	77	58	21	15				

119—BARN SWALLOW (*Hirundo rustica*). — Su. R. Average earliest spring record, Apr. 19; earliest, Mar. 24, 1957, 1, Baums Lake (M. B. M. and T. O. S.). Average latest fall record, Sept. 19; latest, Sept. 21, 1948, 6, Robinson.

Abundance: Based on 201 trips between Apr. 19 and Sept. 19.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				47	89	17	35	95	79			
No. of Trips				23	44	38	33	42	21			
Birds per Trip				2.0	2.0	0.5	1.0	2.3	3.8			
No. of Trips Contacted				8	15	10	6	12	8			
% of Trips Contacted				35	34	26	18	29	38			

Reproduction: June 5, 1955, 3 N, 5 birds seen, Hall's Crossroad.

120—CLIFF SWALLOW (*Petrochelidon pyrrhonota*). — Sp. and F. M. Earliest spring record, Apr. 5, 1952, 1, Baum's Lake, Dick Laurence, (J. T. T., Migrant, 23:53); latest spring record, May 20, 1950, I. P. Earliest fall record, Aug. 18, 1949, 1, G. F.; latest fall record, Sept. 12, 1948, 3, P. Other records: Apr. 28, 1937, 1 A. J. L., (W. M. W.); Apr. 30, 1945, 2, I. H., L. R. Herndon, E. T. O. S. Spring Census; May 5, 1948, 5, P.; May 6, 1951, 3, P.; May 9, 1955, 2, Millertown; May 10, 1954, 2, Millertown; May 13, 1952, 2, Ball Camp; Aug. 21, 1949, 2, Strong Farm, Holston River; Sept. 4, 1948, 36, Asbury.

121—PURPLE MARTIN (*Progne subis*). — Su. R. Average earliest spring record, Mar. 16; earliest, Feb. 19, 1956, 1, C. Average latest fall record, Aug. 25; latest, Sept. 22, 1954, 5, S. H., (M. B. M.).

Abundance: Based on 215 trips between Mar. 16 and Aug. 25.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds			25	306	327	460	1537	1695				
No. of Trips			15	48	44	38	33	37				
Birds per Trip			1.7	6.4	7.4	12.1	46.6	45.8				
No. of Trips Contacted			6	37	37	36	33	27				
% of Trips Contacted			40	77	84	95	100	73				

An unusually large flock gathered in S. H. during late August 1954, most disappearing by August 29, (J. C. H. and J. T. T., Migrant, 25:55). More appeared in the same area in September 1954, and were observed by M. B. M. as follows: Sept. 10, 10; Sept. 13, 80; Sept. 22, 5. Sept. 17, 1950, 1, (J. T. T.). Reproduction: 16 pairs were nesting in gourds at I. H. in 1939, (W. M. W., Migrant, 10: 58).

122—BLUE JAY (*Cyanocitta cristata*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	184	259	303	460	383	266	364	588	682	393	230	163
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	7.4	13.6	11.2	9.6	8.7	7.0	11.0	14.0	20.7	19.7	8.8	9.6
No. of Trips Contacted	16	17	23	36	42	35	32	40	31	19	22	13
% of Trips Contacted	64	89	85	75	95	92	97	95	94	95	85	76

May 18, 1950, one imitated a Cooper's Hawk very accurately, U. T. C. F.

123—COMMON CROW (*Corvus brachyrhynchos*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	2766	3069	893	604	490	546	495	856	962	651	3599	1739
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	110.6	161.5	33.1	12.6	11.1	14.4	15.0	20.4	29.2	32.6	138.4	102.3
No. of Trips Contacted	25	19	27	45	41	33	31	41	29	20	25	17
% of Trips Contacted	100	100	100	94	93	87	94	98	88	100	96	100

Reproduction: Apr. 9, 1949, Crow flushed from nest 50 ft. up in pine. May 1941, Mr. Ijams gives detailed description of Crow's nest: 250 sticks, moss, dirt, bark, lining, etc. (H. P. I., Migrant, 12:68).

124—CAROLINA CHICKADEE (*Parus carolinensis*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	304	210	279	376	281	424	457	551	366	219	364	227
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	12.2	11.1	10.3	7.8	6.4	11.2	13.8	13.1	11.1	11.0	14.0	13.4
No. of Trips Contacted	25	18	25	46	39	37	33	40	32	20	25	16
% of Trips Contacted	100	95	93	96	89	97	100	95	97	100	96	94

Reproduction: Apr. 8, 1950, Chickadees pecking out nest cavity, P. They carried chips from nest tree from five to 25 ft. Both sexes pecked. Nest 15ft. up in rotten deciduous trunk in pine grove. Apr. 16, 1953, N-6 E in fence post, Bearden.

125—TUFTED TITMOUSE (*Parus bicolor*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	123	102	141	298	230	199	183	222	141	110	92	71
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	4.9	5.4	5.2	6.2	5.2	5.2	5.5	5.3	4.3	5.5	3.5	4.2
No. of Trips Contacted	23	16	23	44	43	35	29	34	29	19	21	15
% of Trips Contacted	92	84	85	92	98	92	88	81	88	95	81	88

In Mar. 1947 (W. M. W., Migrant, 18:11) Mr. Ijams reported that Titmice drove Bluebirds from nesting box in which they had laid four eggs, barely covered these and laid four of their own.

126—WHITE-BREADED NUTHATCH (*Sitta carolinensis*). — P. R.

Abundance: Based on 372 trips.

ov. Dec.		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9 1739	No. of Birds	9	8	2	3	5	9	13	11	10	5	9	5
6 17	No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
4 102.3	per Trip	0.4	0.4	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.3	0.3	0.3
5 17	No. of Trips Contacted	6	6	1	3	5	6	9	7	9	3	6	4
6 100	% of Trips Contacted	24	32	4	6	11	16	27	17	27	15	23	24

Reproduction: Mar. 22, 1954, pair nested in box of J. B. Owen, F. C. On April 7, there were 5 or 6 E; Apr. 21, hatched; May 12, 4 Y left the nest. Apr. 7, 1955, pair started to build in same box but were driven out by House Sparrows.

127—RED-BREADED NUTHATCH (*Sitta canadensis*). — W. R. Average earliest fall record, Sept. 24; earliest, Sept. 4, 1951, 1, Little Switzerland, (J. T. T.), (J. T. T., Migrant, 22:48). Average latest spring record, Apr. 9; latest, May 2, 1954, 1, Sherrod Rd., G. E. Albert, (J. T. T., Migrant, 25:26). Other early fall record, Sept. 16, 1951, 2, P. Other late spring record, Apr. 30, 1949, 1, Knoxville.

Abundance: Based on 157 trips between Sept. 24 and Apr. 9.

ov. Dec.		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4 227	No. of Birds	0	3	1	4					0	2	4	3
6 17	No. of Trips	25	19	27	15					8	20	26	17
0 13.4	per Trip	0	0.2	—	0.3					0	0.1	0.2	0.2
5 16	No. of Trips Contacted	0	2	1	2					0	2	2	3
6 94	% of Trips Contacted	0	11	4	13					0	10	8	18

128—BROWN CREEPER (*Certhia familiaris*). — W. R. Average earliest fall record, Oct. 21; earliest, Oct. 14, 1956, 1, Middlebrook Pike, (M. B. M.). Average latest spring record Mar. 30; latest, Apr. 26, 1937, 1, A. J. L., (W. M. W.).

Abundance: Based on 119 trips between Oct. 21 and Mar. 30.

ov. Dec.		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
92 71	No. of Birds	15	3	8							1	12	9
26 17	No. of Trips	25	19	26							6	26	17
3.5 4.2	per Trip	0.6	0.2	0.3							0.2	0.5	0.5
21 15	No. of Trips Contacted	9	3	6							1	9	6
81 88	% of Trips Contacted	36	16	23							17	35	35

Titmice
gs, barely

1942-43. "The Brown Creeper has been present in unusual numbers from Christmas through February." (W. M. W., Migrant, 14:15). Jan. and Feb. 1955, a Brown Creeper fed daily on suet in wire feeder, suet crumbs on the ground, and insects (presumably) in holes made in a dogwood tree by a Yellow-bellied Sapsucker, S. H., (M. B. M.).

129—HOUSE WREN (*Troglodytes aedon*). — Su. R. Earliest spring record, Mar. 24, 1945, 1, I. H., (W. M. W.), (Henry Meyer, Migrant, 17:14). Additional records as follows:
Apr. 16, 1950, 2, singing, Maloney Hts.; Apr. 22, 1948, 1, U. T. C. F.; Apr. 27, 1947, 2, U. T. C. F.; Apr. 29, 1939, 1, heard and seen by Mrs. Meyer, I. H., (W. M. W., Migrant, 13:3); May 2, 1955, 1, singing, Ebenezer Rd.; May 12-June 1, 1944, 1, singing daily in yard, Knoxville, Henry Meyer; May 28-29, 1950, 1, singing, Lonsdale; June 18-July 4, 1944, 1, Knoxville, sang regularly, but was apparently an unmated bird, (Henry Meyer, Migrant, 17:14); July 4, 1950, 3, singing, 2, seen, nest in gourd, Lonsdale (see below); July 14, 1951, singing Lonsdale; July 16, 1949, 1, singing near H. M.; Sept. 25, 1955, 1, U. T. C. F.; Sept. 26, 1954, 1, U. T. C. F.; Sept. 27, 1953, 1, singing, P.; Oct. 14, 1956, 1, seen by Mrs. R. J. Dunbar and heard scolding by (M. B. M.), on Hardin Valley Rd., and 1, near Farragut. Reproduction: July 4, 1950, "This year for the first time, House Wrens were found nesting in Knox Co.; singing birds were found by J. C. H. in late May, and on July 4, two nests in the same general locality were found." (Lonsdale) (J. T. T., Migrant, 21:52). See also (J. C. H., Migrant, 22:33). May 4, 1952, pair reported by John Jacobs building at Gettys' residence on Arrowhead Trail. "Mrs. E. E. Overton of Knoxville reported two nesting pairs during the census period [mid-July] and two at an earlier date. (J. B. Owen). One pair was located in Sequoyah Hills in West Knoxville, and a pair in East Knoxville which were apparently incubating their second clutch during the survey period." (Lee R. Herndon, Migrant, 25:49). See: "The House Wren in Tennessee," (Lee R. Herndon, Migrant, 27:23-29).

130—WINTER WREN (*Troglodytes troglodytes*). — W. R. Average earliest fall record, Oct. 31; earliest, Oct. 18, 1953, 5, G. F. Average latest spring record, Apr. 9; latest, Apr. 28, 1937, 1, A. J. L., (W. M. W.).

Abundance: Based on 130 trips between Oct. 31 and Apr. 9.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	3	1	3	1						2	12	17
No. of Trips	25	19	27	15						1	26	17
Birds per Trip	0.1	0.1	0.1	0.1						2.0	0.5	1.0
No. of Trips Contacted	2	1	2	1						1	4	5
% of Trips Contacted	8	5	7	7						100	15	30

131—BEWICK'S WREN (*Thryomanes bewickii*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	11	15	40	158	133	86	56	24	38	15	17	3
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0.4	0.8	1.5	3.3	3.0	2.3	1.7	0.6	1.2	0.8	0.7	0.2
No. of Trips Contacted	6	7	12	36	34	26	18	11	13	5	11	2
% of Trips Contacted	24	37	44	75	77	68	55	26	39	25	42	12

Singing: Based on 154 roadside Census Trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	5	3	13	39	38	68	50	17	27	14	14	2
Number Singing	0	0	11	31	30	49	24	10	12	1	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Jan. 16, 1949, 1, Vestal. Latest date on which song was heard, Oct. 18, 1947, 1, Byington. Song was also heard on the following early dates: Jan. 23, 1949, 4, C.; Feb. 5, 1950, 1, C.; Feb. 12, 1950, 4, Thorngrove Rd.; Feb. 19, 1950, 2, P.

132—CAROLINA WREN (*Thryothorus ludovicianus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	183	176	227	532	462	382	534	741	376	220	228	176
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	7.3	9.3	8.4	11.1	10.5	10.1	16.2	17.6	11.4	11.0	8.8	10.4
No. of Trips Contacted	23	18	23	47	44	38	33	41	32	19	25	17
% of Trips Contacted	92	95	85	98	100	100	100	98	97	95	96	100

Singing: Based on 154 Roadside Census Trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	86	115	105	195	143	282	428	632	200	151	131	133
Number Singing	24	64	82	171	125	223	234	392	89	62	47	36
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Reproduction: Mar. 25, 1955, N-3 E in garage in Vestal. Apr. 2, 1949, N-5 E, Vestal; Apr. 15, 1948, nest observed in garage, S. H., young left May 20, (M. B. M.). June 28, 1947, N-5 Y, U. T. C. F.

133—LONG-BILLED MARSH WREN (*Telmatodytes palustris*). — Sp. and F. M. An extraordinarily early record, Mar. 21, 1938, 1, A. J. L., Henry Meyer, (W. M. W., Migrant, 13:11). Next earliest, May 18, 1950, 1, U. T. C. F. Sept. 25, 1949, 2, C.; Sept. 26, 1954, 6, Topside (J. T. T.) (J. T. T., Migrant, 25:17); Sept. 27, 1953, 1, P.; Sept. 28, 1947, 2, I. H., (J. T. T.); Oct. 1, 1950, 2, near H. M.; Oct. 14, 1947, 1, C.

134—SHORT-BILLED MARSH WREN (*Cistothorus platensis*). — Sp. and F. M. May 1, 1932, 1, I. H., (H. P. I.) and B. Crouch, (W. M. W., Migrant, 13:13). May 7, 1950, 1, P.; May 9, 1952, 1, singing, Dry Gap; Sept. 25, 1955, 1, U. T. C. F.; Sept. 26, 1954, 3, Ft. L. L., (J. T. T.), (J. T. T., Migrant, 25:17); Sept. 27, 1953, 3, (J. T. T.), (J. T. T., Migrant, 24:58); Oct. 1, 1950, 2, near H. M.; Nov. 12, 1949, 1, near H. M.

135—MOCKINGBIRD (*Mimus polyglottos*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	259	221	434	932	949	1252	1152	939	597	371	348	243
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	10.4	11.6	16.1	19.4	21.6	32.9	34.9	22.4	18.1	18.6	13.4	14.3
No. of Trips Contacted	24	19	27	46	42	34	32	41	26	17	26	17
% of Trips Contacted	96	100	100	96	95	89	97	98	79	85	100	100

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	126	138	200	319	411	1082	999	815	383	261	207	128
Number Singing	0	2	64	153	138	407	228	4	97	120	19	1
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Early singing records: Dec. 6, 8, 1951, 1, U. T. Campus, sang a number of times; Jan. 24, 1950, 1, U. T. Campus, first for year. Late singing record, Aug. 18, 1951, 1, Ebenezer.

Reproduction: July 14, 1951, N-3 E, fresh, P.; Aug. 6, 1939, N, Knoxville, (W. M. W., Migrant, 10:58); Sept. 2, 1940, 3 Y observed (W. M. W., Migrant, 11:78).

136—CATBIRD (*Dumetella carolinensis*). — Su. R. Possible rare winter resident. Average earliest spring record, Apr. 23; earliest, Apr. 14, 1955, 1, S. H., (M. B. M.). Average latest fall record, Oct. 8; latest, Dec. 4, 1949, 1, Trentville, perhaps this was a wintering bird.

Abundance: Based on 217 trips between Apr. 23 and Oct. 8.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				65	314	213	247	156	120	6		
No. of Trips				20	44	38	33	42	33	7		
Birds per Trip				3.3	7.1	5.6	7.5	3.7	3.6	0.9		
No. of Trips Contacted				11	39	33	33	39	26	4		
% of Trips Contacted				55	89	87	100	93	79	57		

Sp. and
Migrant,
1955, 1,
t. 25:17);
1950, 2,

Singing: Based on 99 roadside census trips between Apr. 25 and Oct. 14.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				32	114	164	203	119	57	5		
Number Singing				19	45	87	62	0	0	0		
No. of Trips				4	10	20	22	27	12	4		

Nov. Dec.

Singing: Earliest date on which song was heard, Apr. 25, 1948, 7, Bearden. Latest date on which song was heard, July 27, 1947, 2, Mascot. May 16, 1954, Dry Gap, Catbird imitated Chuck-will's, Widow.
Reproduction: May 12, 1949, nest about to be lined, G. F.

848 243

26 17

137—BROWN THRASHER (*Toxostoma rufum*). — P. R. Very few winter here.

13.4 14.3

Abundance: Based on 372 trips.

26 17

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	0	0	130	548	459	400	271	131	129	2	1	1
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0	0	4.8	11.4	10.4	10.5	8.2	3.1	3.9	0.1	—	0.1
No. of Trips Contacted	0	0	11	42	43	34	33	34	23	2	1	1
% of Trips Contacted	0	0	41	88	98	89	100	81	70	10	4	6

Nov. Dec.

207 128

19 1

10 8

number of
record, Aug.

Singing: Based on 154 roadside census trips.

Knoxville,
, Migrant,

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	0	0	75	225	178	315	213	102	54	0	1	0
Number Singing	0	0	60	151	52	63	18	0	0	0	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

are winter
14, 1955, 1,
4, 1949, 1,

Singing: Earliest date on which song was heard, Mar. 19, 1948, 3, Kimberlin Hts. Latest date on which song was heard, July 19, 1949, 2, P. Records of Brown Thrashers wintering near Knoxville are given by W. M. W. between 1935 and 1944. See also (W. M. W., Migrant 16:66).

Nov. Dec.

138—ROBIN (*Turdus migratorius*). — P. R. Robins are known to roost in large numbers at certain times of year. On Nov. 21, 1954, about 2000 were observed near Ebenezer Rd. roosting with thousands of Starlings, Red-winged Blackbirds, Grackles and Cowbirds.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	594	1003	2877	1075	887	956	814	512	441	634	1013	145
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	23.8	52.8	106.6	22.4	20.2	25.2	24.7	12.2	13.4	31.7	39.0	8.5
No. of Trips Contacted	12	14	27	46	42	34	33	39	26	17	19	6
% of Trips Contacted	48	74	100	96	95	89	100	93	79	85	73	35

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	37	343	832	423	341	748	647	420	284	244	857	80
Number Singing	0	9	49	60	78	195	81	4	0	0	1	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Several factors account for more Robins being observed in March than in any other month. Spring migration is at its peak, the Robins are singing, and they feed in bare open fields. At this season, earthworms and other organisms are available in the moist fields and pastures. In the fall, although there are more Robins, they have virtually ceased to sing, and they feed to a large extent on various fruits and berries which grow in cover, where the birds are more difficult to observe. Also, in Aug. and Sept., they are molting and have ceased to care for their young. Singing: Singing is rare in fall and winter. Earliest spring song, Jan. 23, 1949, 2, G. F. Earliest song in 1948 was Feb. 19, U. T. Campus. A single bird was heard to sing on each of the following dates: Sept. 30, 1948, Vestal; Oct. 21, 1950, Inskip; Nov. 4, 1946, U. T. Campus; Dec. 22, 1952, U. T. Campus. Thus they may occasionally sing in any month. Reproduction: 2 Y observed Aug. 31, 1940, (W. M. W., Migrant, 11:78).

139—WOOD THRUSH (*Hylocichla mustelina*).—Su. R. Average earliest spring record, Apr. 12; earliest, Apr. 3, 1945, 1, S. H., (M. B. M.). Average latest fall record, Oct. 13; latest, Nov. 2, 1952, 1, S. H., (M. B. M.).

Abundance: Based on 225 trips between Apr. 12 and Oct. 13.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				191	430	382	356	35	40	3		
No. of Trips				29	44	38	33	42	33	6		
Birds per Trip				6.6	9.8	10.1	10.8	0.8	1.2	0.5		
No. of Trips Contacted				23	42	37	32	16	16	1		
% of Trips Contacted				79	95	97	97	38	48	17		

Singing: Based on 90 roadside census trips between Apr. 10 and Sept. 11.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				61	134	301	299	18	2			
Number Singing				39	102	265	252	0	0			
No. of Trips				7	10	20	22	27	4			

Singing: Earliest date on which song was heard, Apr. 8, 1948, 1, S. H., (M. B. M.). Latest date on which song was heard, Sept. 18, 1955, 1, U. T. C. F. This is the only fall date on which we have heard this species sing. Reproduction: Apr. 27, 1947, one carrying nesting material, U. T. C. F. May 24, 1955, one incubating 2 E about to hatch, S. H., (M. B. M.).

140—HERMIT THRUSH (*Hylocichla guttata*). — W. R. Average earliest fall record Oct. 25; earliest, Oct. 16, 1947, 1, S. H., (M. B. M.). Average latest spring record, Apr. 18; latest, May 1, 1948, 1, U. T. C. F.

Abundance: Based on 148 trips between Oct. 25 and Apr. 18.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	33	6	6	4						6	34	27
No. of Trips	25	19	27	25						9	26	17
Birds per Trip	1.3	0.3	0.2	0.2						0.7	1.3	1.6
No. of Trips Contacted	11	6	3	3						2	14	13
% of Trips Contacted	44	32	11	12						22	54	76

Singing: May 1, 1948, 1, U. T. C. F.; Oct. 24, 1953, one singing very low, U. T. C. F.; Dec. 1, 3, 1948, one singing rather softly, Vestal.

141—SWAINSON'S THRUSH (*Hylocichla ustulata*). — Sp. and F. M. Average earliest spring record, Apr. 22; earliest, Apr. 13, 1947, 1, S. H., (M. B. M.). Average latest spring record, May 22; latest, May 29, 1953, 1, S. H., (M. B. M.). Average earliest fall record, Sept. 14; earliest, Sept. 5, 1950, 1, S. H., (M. B. M.). Average latest fall record, Oct. 12; latest, Nov. 23, 1951, 1, (A. J. M.).

Abundance: Based on 86 trips between Apr. 22 and May 22 and Sept. 14 and Oct. 12.

	Apr.-May	Sept.-Oct.
No. of Birds	107	18
No. of Trips	57	29
Birds per Trip	1.9	0.6
No. of Trips Contacted	18	8
% of Trips Contacted	32	28

Singing: Heard between Apr. 29 and May 27.

142—GRAY-CHEEKED THRUSH (*Hylocichla minima*). — Sp. and F. M. Apr. 28, 1940, 1, I. H., (W. M. W.); Apr. 30, 1939, 1, I. H., (W. M. W.); May 2, 1937, 1, I. H., (W. M. W.); May 4, 1940, 1, I. H., (W. M. W.); May 20, 1939, 1, I. H., (W. M. W.); Sept. 16, 1954, 1, (J. T. T.); Sept. 30, 1956, 4, Topside; Oct. 4, 1953, 8, Little Switzerland, (J. T. T.).

143—VEERY (*Hylocichla fuscescens*). — Sp. M. No fall records. All records occur during the short period, Apr. 24 to May 16. Apr. 24, 1954, 1, U. T. C. F.; Apr. 25, 1954, 1, Maloney Heights; Apr. 30, 1939, 1, I. H., (W. M. W.); Apr. 30, 1954, 1, S. H., (M. B. M.); May 2, 1937, 1, I. H., (W. M. W.); May 2, 1954, 1, Knoxville; May 3, 1936, 1, I. H., (W. M. W.); May 5, 1954, 1, Millertown; May 6, 1952, 1, singing, Lyons View; May 6, 1954, 1, S. H., (M. B. M.); May 6, 1955, 1, singing, Ball Camp; May 7, 1954, 1, singing, Ball Camp; May 8, 1951, 1, singing, Ball Camp; May 8, 1951, 1, S. H., (M. B. M.); May 10, 1952, 1, S. H., (M. B. M.); May 10, 1953, 2, singing, Dry Gap Pike; May 11, 1952, 1, S. H., (M. B. M.); May 12, 1955, 1, singing, Ball Camp; May 13, 1952, 1, singing, Ball Camp; May 16, 1952, 1, singing, Lyons View; May 16, 1953, 1, singing, Lyons View.

144—EASTERN BLUEBIRD (*Sialia sialis*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	364	317	469	675	619	650	744	1095	657	367	646	333
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	14.6	16.7	17.4	14.1	14.1	17.1	22.6	26.1	19.9	18.4	24.8	19.6
No. of Trips Contacted	23	19	26	42	37	33	28	42	24	19	26	17
% of Trips Contacted	92	100	96	88	84	87	85	100	73	95	100	100

Reproduction: Apr. 16, 1953, Bluebird on nest in fence post, Bearden. For the past thirteen years, Bluebirds have nested in boxes in my yard in S. H., raising one, two, or three broods. This seems unusual as the yard and adjoining sanctuary are heavily wooded with oaks and other hardwoods with comparatively small open areas. Feb. 21, 1944, one pair came, followed by a second pair Feb. 27. Males had a fight, but one pair stayed. (The previous year, both pairs left after a fight.) Nest was guarded against Starlings for many weeks. Apr. 10, 4 E; Apr. 24, hatched, May 9, Y left nest. In 1945 a pair nested somewhat earlier. Of five Y, fully feathered, three left nest successfully, while two were apparently smothered. Later broods of five have been successfully fledged from same nesting box. (M. B. M.).

145—BLUE-GRAY GNATCATCHER (*Poliophtila caerulea*). — Su. R. Average earliest spring record, Apr. 4; earliest, Mar. 26, 1949, 2, C. Average latest fall record, Sept. 10; latest, Oct. 3, 1950, 1, Mrs. W. M. Johnson, Riverside Dr. Other late records: Sept. 20, 1936, 1, I. H., (W. M. W.); Sept. 30, 1956, 1, U. T. C. F.

Abundance: Based on 210 trips between Apr. 4 and Sept. 10.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				237	216	109	31	42	6			
No. of Trips				42	44	38	33	42	11			
Birds per Trip				5.6	4.9	2.9	0.9	1.0	0.5			
No. of Trips Contacted				37	41	26	8	10	4			
% of Trips Contacted				88	93	68	24	24	36			

This species is not often heard singing, usually giving call notes. One singing, Aug. 14, 1948, U. T. C. F. Reproduction: Apr. 27, 1947, 1, carrying building material to nest, U. T. C. F.

146—GOLDEN-CROWNED KINGLET (*Regulus satrapa*). — W. R. Average earliest fall record, Oct. 20; earliest, Sept. 22, 1940, 1, A. J. L., (W. M. W.). Average latest spring record, Apr. 8; latest, Apr. 27, 1937, 5, U. T. C. F., (W. M. W.).

Abundance: Based on 132 trips bet. Oct. 20 and Apr. 8.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	53	13	27	8						15	65	58
No. of Trips	25	19	27	12						6	26	17
Birds per Trip	2.1	0.7	1.0	0.7						2.5	2.5	3.4
No. of Trips Contacted	15	5	11	3						5	17	13
% of Trips Contacted	60	26	41	25						83	65	76

Dec. 29, 1939, 33 reported by Mr. and Mrs. Wm. Walker, A. J. L., (Members, Migrant, 11:23). No singing records for Knox Co.

147—RUBY-CROWNED KINGLET (*Regulus calendula*). — W. R. Average earliest fall record, Oct. 1; earliest, Sept. 22, 1949, 1, S. H., (M. B. M.). Average latest spring record, Apr. 30; latest, May 7, 1950, 1, John Sevier.

Abundance: Based on 182 trips between Oct. 1 and Apr. 30.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	6	2	8	64						31	22	9
No. of Trips	25	19	27	48						20	26	17
Birds per Trip	0.2	0.1	0.3	1.3						1.6	0.8	0.5
No. of Trips Contacted	4	2	7	22						11	10	7
% of Trips Contacted	16	11	26	46						55	38	41

Singing: Mar. 31, 1949, 1, C.; Apr. 8, 1948, 3, U. T. C. F.; Apr. 8, 1950, 2, P.; Apr. 9, 1949, 2, Trentville; Apr. 10, 1948, 2, U. T. C. F.; Apr. 16, 1950, 1, Maloney Hts.; Apr. 18, 1950, 5, C.; Apr. 22, 1950, 1, Knoxville; Oct. 23, 1956, 1, S. H., (M. B. M.).

148—WATER PIPIT (*Anthus spinoletta*). — W. R. Nov. 18, 1951, 100, C.; Nov. 23, 1952, 35, C.; Nov. 25, 1948, 50, C.; Jan. 9, 1949, 35, G. F.; Jan. 16, 1949, 45, C.; Jan. 23, 1949, 45, G. F.; Feb. 4, 1940, 2, F. C., (W. M. W.), W. M. W., Migrant, 11:28; Feb. 6, 1949, 25, C.; Feb. 19, 1950, 1, P.; Feb. 20, 1955, 2, C.; Mar. 15, 1953, 75, C.; Mar. 29, 1936, 1, A. J. L., (W. M. W.); Apr. 27, 1941, 27, I. H., (W. M. W.); May 1, 1949, 1, P.

149—CEDAR WAXWING (*Bombycilla cedrorum*). — P. R. (W. M. W.) has no record for this species for June, July, Aug. 1935 or from May, June, July, Aug. 1936.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	437	357	510	504	497	15	19	8	233	322	1216	300
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	17.5	18.8	18.9	10.5	11.3	0.4	0.6	0.2	7.1	16.1	46.7	17.6
No. of Trips Contacted	8	8	15	36	31	5	8	4	9	10	20	9
% of Trips Contacted	32	42	56	75	70	13	24	10	27	50	77	53

Reproduction: June 22, 1947, one flew to nest 50 ft. up on horizontal branch of elm, U. T. Campus. July 21, 1951, 2 Y, Cedar Grove, (J. C. H.), (J. T. T., Migrant, 22:47). Aug. 15, 1954, one with food in bill, (J. C. H.), (J. C. H. and J. T. T., Migrant, 25:55).

150—LOGGERHEAD SHRIKE (*Lanius ludovicianus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	31	41	42	.18	32	28	35	50	46	11	66	38
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	1.2	2.2	1.6	0.4	0.7	0.7	1.1	1.2	1.4	0.6	2.5	2.2
No. of Trips Contacted	15	14	18	13	16	14	16	23	16	7	22	13
% of Trips Contacted	60	74	67	27	36	37	48	55	48	35	85	76

Reproduction: Apr. 16, 1953, N in rosebush in pasture near Bearden; Apr. 16, 1953, N in 12 ft. cedar near Bearden; Apr. 24, 1949, N seven ft. up in small honeysuckle-covered elm, 5 Y about five days old, P.; May 3, 1953, Shrike's nest containing 5 Y, (Knoxville notes, Migrant, 24:34); Aug. 17, 1952, 2 adults and family of 5, P.

151—STARLING (*Sturnus vulgaris*). — P. R. This is probably the most common bird in Knox Co. Certainly it is the one most frequently seen except during the fall peak of the Grackle migration.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	12834	9176	3212	1866	1729	2650	3016	8988	5103	5135	21529	8610
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	513.4	482.9	119.0	38.9	39.3	69.7	91.4	214.0	154.6	256.8	828.0	506.5
No. of Trips Contacted	24	19	26	45	41	33	33	39	29	17	26	16
% of Trips Contacted	96	100	96	94	93	87	100	93	88	85	100	94

Feb. 14, 1947, U. T. Campus, one giving excellent imitation of a Meadowlark. Mar. 9, 1947, U. T. Campus, imitated full song of Meadowlark, Bluebird flight song, Thrasher's scold notes, Red-winged Blackbird's scold notes; Mar. 24, 1952, U. T. Campus, imitated flight song of Nighthawk. June 22, 1952, Starling's flocking, C. In Sept. 1940 a large Grackle-Starling roost was observed south of Knoxville, but at that time the Starlings were present in comparatively small numbers. (W. M. W., Migrant, 11:78).

152—WHITE-EYED VIREO (*Vireo griseus*). — Su. R. Average earliest spring record, Apr. 11; earliest, Apr. 2, 1938, 2, A. J. L., (W. M. W.). Average latest fall record, Sept. 25; latest, Oct. 20, 1947, 1, A. J. L. (J. T. T.).

Abundance: Based on 217 trips between Apr. 11 and Sept. 25.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				157	211	218	171	101	111			
No. of Trips				31	44	38	33	42	29			
Birds per Trip				5.1	4.8	5.7	5.2	2.4	3.8			
No. of Trips Contacted				28	42	35	31	26	20			
% of Trips Contacted				90	95	92	94	62	69			

Singing: Based on 100 roadside census trips between Apr. 10 and Oct. 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				45	69	172	135	87	57	1		
Number Singing				43	67	170	128	72	47	0		
No. of Trips				7	10	20	22	27	12	2		

Singing: Earliest date on which song was heard, Apr. 8, 1948, 1, U. T. C. F. Latest date on which song was heard, Sept. 26, 1947, 3, Kimberlin Hts.; Sept. 26, 1954, 1, Topside.

Reproduction: May 9, 1944, Vireo incubating on nest in small bush three ft. from ground in S. H. On May 14, the nest was found to contain four Vireo eggs and one Cowbird egg. (M. B. M.). May 28, 1949, N-4 E deserted, four ft. up in Sycamore, U. T. C. F.

153—YELLOW-THROATED VIREO (*Vireo flavifrons*). — Su. R. Average earliest spring record, Apr. 13; earliest, Apr. 7, 1953, 1, S. H., (M.B.M.). Average latest fall record, Sept. 25; latest, Oct. 16, 1954, G. F., J. B. Owen.

Abundance: Based on 215 trips between Apr. 13 and Sept. 25.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				83	107	73	39	33	35			
No. of Trips				29	44	38	33	42	29			
Birds per Trip				2.9	2.4	1.9	1.2	0.8	1.2			
No. of Trips Contacted				24	35	29	18	16	16			
% of Trips Contacted				83	80	76	55	38	55			

Singing: Based on 95 roadside census trips between Apr. 11 and Sept. 25.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				9	19	37	24	22	13			
Number Singing				9	18	34	23	13	9			
No. of Trips				6	10	20	22	27	10			

Singing: Earliest date on which song was heard, Apr. 11, 1948, 2, Strawberry Plains Pike. Latest date on which song was heard, Sept. 27, 1953, 1, P.

154—SOLITARY VIREO (*Vireo solitarius*). — Sp. and F. M. Earliest spring record, Apr. 4, 1936, 2, U. T. C. F., (W. M. W.); latest spring record, May 2, 1937, 1, I. H., (W. M. W.). All other records for one bird only: Apr. 8, 1948, U. T. C. F.; Apr. 9, 1942, S. H., (M. B. M.); Apr. 16, 1953, S. H., (M. B. M.); Apr. 23, 1953, U. T. C. F.; Apr. 28, 1937, U. T. C. F., (W. M. W.); Apr. 28, 1943, S. H., (M. B. M.); May 1, 1955, Maloney Hts., (M. B. M.). Only four fall records: Sept. 30, 1956, Topside; Oct. 15, 1949, S. H., (M. B. M.); Oct. 25, 1953, (J. T. T.); Oct. 26, 1947, Trentville.

155—RED-EYED VIREO (*Vireo olivaceus*). — Su. R. Average earliest spring record, Apr. 20; earliest, Apr. 11, 1948, 1, S. H., (M. B. M.). Average latest fall record, Sept. 22; latest, Sept. 29, 1952, 1, S. H., (M. B. M.). (A. T. O. S. record, lacking the observer's name is for Oct. 6).

Abundance: Based on 205 trips between Apr. 20 and Sept. 22.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				215	572	519	264	124	42			
No. of Trips				23	44	38	33	42	25			
Birds per Trip				9.3	13.0	13.7	8.0	3.0	1.7			
No. of Trips Contacted				22	44	37	28	28	12			
% of Trips Contacted				96	100	97	85	67	48			

Singing: Based on 94 roadside census trips between Apr. 20 and Sept. 21.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				57	148	329	191	95	8			
Number Singing				46	127	314	169	57	0			
No. of Trips				5	10	20	22	27	10			

Singing: Earliest date on which song was heard, Apr. 16, 1953, 1, Tyson Park. Latest date on which song was heard, Aug. 25, 1949, 2, Trentville.

Reproduction: June 12, 1932, one Cowbird egg in nest with one Vireo egg, I. H., (H. P. I.), (Round Table, Migrant, 3:38). May 29, 1949, pair at nest just begun, 15 ft. up in red maple tree ten ft. back from Clinch River.

156—PHILADELPHIA VIREO (*Vireo philadelphicus*). — Sp. and F. M. (W. M. W.) records one bird for each of the following spring dates: Apr. 7, 1940, I. H.; Apr. 13, 1936, U. T. C. F.; Apr. 16, 1938, Tyson; Apr. 18, 1937, A. J. L.; Apr. 27, 1940, I. H. May 8, 1948, 2, (A. J. M.). Fall dates: Sept. 20, 1936, 1, I. H., (W. M. W.); Sept. 26, 1954, 2, U. T. C. F. Of interest, though just outside of Knox Co. is the following record: Oct. 7-8, 1951, 4, dead, (J. C. H. and J. T. T., Accident to Migrating Birds at the Knoxville Airport, Migrant, 22:61-62).

157—WARBLING VIREO (*Vireo gilvus*). — Su. R. Average earliest spring record, Apr. 25; earliest, Apr. 15, 1936, 2, U. T. C. F., (W. M. W.). Average latest fall record, July 15; latest, Oct. 10, 1939, 1, Knoxville, (W. M. W.) singing feebly in leafless hackberry, (W. M. W., Migrant, 10:76).

Abundance: Based on 113 trips between Apr. 25 and July 15.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				10	22	9	2					
No. of Trips				14	44	38	17					
Birds per Trip				0.7	0.5	0.2	0.1					
No. of Trips Contacted				1	7	4	2					
% of Trips Contacted				7	16	11	12					

Other singing records: May 1, 1949, 1, P.; May 1, 1955, 1, P.; May 2, 1954, 2, Knoxville; May 4, 1952, 1, P.; May 8, 1954, 1, U. T. C. F.; May 13, 1948, 3, Tyson Park; May 14, 1953, 1, Bearden; May 20, 1950, 3, Tyson Park; June 25, 1952, 1, H. M.; June 26, 1948, 2, Bearden; July 4, 1950, 1, Knoxville; July 17, 1948, 1, P.; July 28, 1951, 3, Tyson Park; Aug. 21, 1949, 1, John Sevier.

Reproduction: May 18, 1947, male sang almost incessantly from nest in sycamore, Tyson Park. June 19, 1949, male sang from nest 35 ft. up in sapling ash tree, 40-45 ft. high in Lynnhurst Cemetery. Nest was four ft. out from trunk near the tip of a nearly horizontal branch.

158—BLACK-AND-WHITE WARBLER (*Mniotilta varia*). — Su. R. Average earliest spring record, Apr. 6; earliest, Mar. 29, 1936, 6, A. J. L., (W. M. W.). Average latest fall record, Oct. 6; latest, Oct. 22, 1950, 1, S. H., (M. B. M.).

Abundance: Based on 234 trips between Apr. 6 and Oct. 6.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				104	130	51	43	30	39	1		
No. of Trips				38	44	38	33	42	33	6		
Birds per Trip				2.7	3.0	1.3	1.3	0.7	1.2	0.2		
No. of Trips Contacted				31	35	24	15	15	20	1		
% of Trips Contacted				82	80	63	45	36	61	17		

Singing: Based on 100 roadside census trips between Apr. 4 and Sept. 26.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				33	24	21	22	19	15			
Number Singing				32	23	20	18	4	0			
No. of Trips				9	10	20	22	27	12			

Singing: Earliest date on which song was heard, Mar. 31, 1949, 2, G. F. Latest date on which song was heard, Aug. 22, 1948, 1, Trentville.

Reproduction: Apr. 24, 1948, building nest U. T. C. F.; May 20, 1949, 2 Y, U. T. C. F.; June 4, 1949, 3 Y, seen on wing, G. F.

159—PROTHONOTARY WARBLER (*Protonotaria citrea*). — Su. R. Average earliest spring record, Apr. 29*; earliest, Apr. 14, 1939, Henry Meyer and R. R. Nevius. Average latest fall record, Aug. 22; latest, Aug. 22, 1948, 1, Thorngrove Rd. *Mr. H. P. Ijams had Prothonotaries nesting regularly in his nesting boxes, over small pools, for many years, and so was able to notice them each year as soon as they arrived. This was usually about April. 16. As he kept no records, we are using our own average date. (M. B. M.).

Abundance: Based on 156 trips between Apr. 29 and Aug. 22.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				7	22	11	6	2				
No. of Trips				8	44	38	33	33				
Birds per Trip				0.9	0.5	0.3	0.2	0.1				
No. of Trips Contacted				3	13	5	4	2				
% of Trips Contacted				38	30	13	12	6				

Singing: Based on 71 roadside census trips between May 5 and Aug. 22.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts					4	9	5	2				
Number Singing					3	6	3	0				
No. of Trips					8	20	22	21				

Singing: Earliest date on which song was heard, Apr. 29, 1950, 4, G. F. Latest date on which song was heard, July 2, 1949, 1, Hardin Valley. Reproduction: Apr. 1937, three pairs in nesting boxes; by the end of May two pairs incubating 5 eggs each, the other, four eggs, I. H. (H. P. I., Migrant, 8:41). See also (Meyer and Nevius, Migrant, 14:31-36) and (Henry Meyer and Ruth Reed Nevius, A. C. Bent, Life Hist. of No. Amer. Wood Warblers, p. 19). May 4, 1952, N-3 E, I. H. (Members, Migrant, 23:25). Nest observed at I. H., May 1953 and 1954, (M. B. M.).

160—WORM-EATING WARBLER (*Helminthos vermivorus*). — Su. R. Average earliest spring record, Apr. 24; earliest, Apr. 11, 1943, I. H., (W. M. W.). Average latest fall record, Sept. 11; latest, Sept. 30, 1951, 1, S. H., (M. B. M.). Most records of this species are for June at R. S. Singing: May 1, 1955, 1, U. T. C. F.; June 21, 1953, 1, R. S.; June 25, 1952, 2, H. M.; June 28, 1952, 2, R. S.; July 1, 1951, 1, H. M. Reproduction: July 1, 1951, 2 Y, 2 adults, H. M. (J. C. H.), (J. T. T., Migrant, 22: 47); June 20, 1952, 2 pairs with a least 2 fledglings and 4 additional adults, R. S., (J. C. H.), (J. T. T., Migrant, 23:53); June 21, 1953, 2 adults, 1 Y, R. S.

161—GOLDEN-WINGED WARBLER (*Vermivora chrysoptera*). — Sp. and F. M. Average earliest spring record, Apr. 22; earliest, Apr. 13, 1948, 1, S. H., (M. B. M.). Average latest spring record, May 9; latest, May 12, 1953, 1, S. H., (M. B. M.). Average earliest fall record, Sept. 5; earliest, Sept. 5, 1948, 1, G. F. Average latest fall record, Sept. 19; latest, Sept. 24, 1947, Vestal, and Sept. 24, 1950, S. H., (M. B. M.). Note: records of this species occur during brief periods, both spring and fall. Singing: Apr. 29, 1950, 1, G. F.

162—BLUE-WINGED WARBLER (*Vermivora pinus*). — Sp. and F. M. Eight records between Apr. 8 and May 1; four between Aug. 21 and Sept. 18. Apr. 8, 1948, 1, singing, U. T. C. F.; Apr. 22, 1948, 2, singing, U. T. C. F.; Apr. 23, 1953, 1, singing, U. T. C. F.; Apr. 24, 1936, 1, U. T. C. F., (W. M. W.); Apr. 26, 1937, 5, A. J. L., (W. M. W.), (W. M. W., Migrant, 8:41); Apr. 29, 1950, 1, singing, G. F.; Apr. 29, 1956, 1, S. H., (M. B. M.); May 1, 1948, 1, U. T. C. F. Aug. 21, 1948, 1, G. F.; Aug. 28, 1954, 1, S. H., (M. B. M.); Sept. 15, 1949, 1, S. H., (M. B. M.); Sept. 18, 1951, 1, P.

163—TENNESSEE WARBLER (*Vermivora peregrina*). — Sp. and F. M. Average earliest spring record, Apr. 29; earliest, Apr. 17, 1938, 1, A. J. L., (W. M. W.). Average latest spring record, May 12; latest, May 20, 1954, 1, S. H., (M. B. M.). Average earliest fall record, Sept. 4; earliest, Aug. 30, 1948, 1, C. Average latest fall record, Oct. 22; latest, Oct. 29, 1950, 1, S. H., (M. B. M.). Oct. 31, 1956, one dead in driveway, S. H., obviously just killed. (M. B. M.).

Abundance: Based on 75 trips between Apr. 29 and May 12 and Sept. 4 and Oct. 12.

	Apr.-May	Sept.-Oct.
No. of Birds	23	126
No. of Trips	29	46
Birds per Trip	0.8	2.7
No. of Trips Contacted	7	27
% of Trips Contacted	24	59

Singing: Earliest date on which song was heard, Apr. 29, 1951, 4, P. and Apr. 29, 1951, 3, G. F. Latest date on which song was heard, May 15, 1943, 1, S. H., (M. B. M.), and May 15, 1948, 1, U. T. C. F., and May 15, 1954, 1, U. T. C. F. Other singing records: May 9, 1950, 2, U. T. C. F.; May 10, 1953, 4, Dry Gap; May 13, 1948, 1, Tyson Park. A Tennessee Warbler was reported in Knoxville, Jan. 3, 1936, by George Foster (Amelia Laskey, Migrant, 21:29). Note: The original record, (Migrant, 7:24) does not state that George Foster was the observer. (M. B. M.).

164—ORANGE CROWNED WARBLER (*Vermivora celata*). — F. M. Three records only: Oct. 18, 1953, 1, G. F.; Oct. 22, 1949, 1, C.; Nov. 8, 1947, 1, Kimberlin Hts.

165—NASHVILLE WARBLER (*Vermivora ruficapilla*). — Sp. and F. M. All records, except the one noted, are for one bird. Apr. 22, 1948, U. T. C. F.; Apr. 23, 1953, singing, U. T. C. F.; Apr. 26, 1936, U. T. C. F., (W. M. W.); Apr. 28, 1953, S. H., (M. B. M.); Apr. 29, 1956, U. T. C. F.; Apr. 30, 1952, S. H., (M. B. M.); May 1, 1938, 1, H., (W. M. W.); May 1, 1951, S. H., (M. B. M.); May 6, 1947, S. H., (M. B. M.); May 6, 1951, P.; May 8, 1948, 1, H. Sept. 6, 1952, G. F.; Sept. 8, 1949, G. F.; Sept. 10, 1949, Jones Bend; Sept. 26, 27, 1956, S. H., (M. B. M.); Sept. 28, 1947, 2, I. H., (J. T. T.); Sept. 30, 1951, S. H., (M. B. M.); Oct. 11, 1951, S. H., (M. B. M.); Oct. 15, 1956, S. H., (M. B. M.); Oct. 18, 1947, Byington; Oct. 19, 1949, S. H., (M. B. M.); Oct. 23, 1955, Amherst.

166—PARULA WARBLER (*Parula americana*). — Su. R. Average earliest spring record, Apr. 21; earliest, Apr. 13, 1948, 1, S. H., (M. B. M.). Average latest fall record, Oct. 10; latest, Oct. 14, 1947, 1, C.

Abundance: Based on 220 trips between Apr. 21 and Oct. 10.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				15	15	24	18	8	4	1		
No. of Trips				22	44	38	33	42	33	8		
Birds per Trip				0.7	0.3	0.6	0.5	0.2	0.1	0.1		
No. of Trips Contacted				8	5	13	10	6	4	1		
% of Trips Contacted				36	11	34	30	14	12	13		

Singing: Based on 97 roadside census trips between Apr. 28 and Oct. 14.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				1	2	10	7	4	1	1		
Number Singing				1	2	9	6	1	1	0		
No. of Trips				4	10	20	22	27	12	2		

Singing: Earliest date on which song was heard, Apr. 17, 1949, 1, G. F. Latest date on which song was heard, Oct. 2, 1949, 1, atypical, U. T. C. F. Reproduction: Apr. 29, 1950, Parula building nest, G. F.

167—YELLOW WARBLER (*Dendroica petechia*). — Su. R. Average earliest spring record, Apr. 13; earliest, Mar. 27, 1938, 1, A. J. L., (W. M. W.). Average latest fall record, Aug. 29; latest, Sept. 5, 1954, 2, Bearden.

Based on 172 trips between Apr. 13 and Aug. 29.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				233	382	129	38	11				
No. of Trips				29	44	38	33	28				
Birds per Trip				8.0	8.7	3.4	1.2	0.4				
No. of Trips Contacted				24	39	25	16	6				
% of Trips Contacted				83	89	66	48	21				

Singing: Based on 70 roadside census trips between Apr. 11 and Aug. 13.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				78	109	103	31	5				
Number Singing				73	105	98	22	1				
No. of Trips				6	10	20	22	12				

Singing: Earliest date on which song was heard, Apr. 11, 1948, 12, Asbury. Latest date on which song was heard, Aug. 4, 1949, 1, Kimberlin Hts.

168—MAGNOLIA WARBLER (*Dendroica magnolia*). — Sp. and F. M. Average earliest spring record, May 1; earliest, Apr. 27, 1952, I, S. H., (M. B. M.). Average latest spring record, May 19; latest, May 23, 1948, I, G. F. Average earliest fall record, Sept. 9; earliest, Sept. 3, 1948, Vestal, (J. C. H.) and Sept. 3, 1949, I, S. H. (M. B. M.). Average latest fall record, Oct. 13; latest, Oct. 24, 1954, I, Bearden.

Abundance: Based on 62 trips between May 1 and May 19 and Sept. 19 and Oct. 13.

	May	Sept.-Oct.
No. of Birds	23	168
No. of Trips	28	34
Birds per Trip	0.8	4.9
No. of Trips Contacted	11	22
% of Trips Contacted	39	65

Singing occurs during the spring migration, but the song is not as distinctive as that of most other warblers, and is therefore less helpful in identification. However, as there is almost no singing in the fall, the larger number of Magnolia Warblers shown in the table at this season is of interest. Earliest date on which song was heard, May 6, 1948, I, I. H. Latest date on which song was heard, May 23, 1948, I, G. F. Other singing records: May 7, 1950, 3, P.; May 9, 1950, I, U. T. C. F.; May 10, 1949, I, P.; May 15, 1948, 3, U. T. C. F.; May 21, 1950, I, near H. M.

169—CAPE MAY WARBLER (*Dendroica tigrina*). — Sp. and F. M. Average earliest spring record, Apr. 24; earliest, Apr. 14, 1953, I, S. H., (M. B. M.). Average latest spring record, May 23; latest, May 23, 1948, I, G. F. Average earliest fall record, Sept. 17; earliest, Sept. 12, 1948, I, P. Average latest fall record, Oct. 18; latest, Oct. 26, 1947, I, Thorngrove Rd.

Abundance: Based on 87 trips between Apr. 24 and May 23 and Sept. 17 and Oct. 18.

	Apr.-May	Sept.-Oct.
No. of Birds	55	23
No. of Trips	55	32
Birds per Trip	1.0	0.7
No. of Trips Contacted	20	4
% of Trips Contacted	36	13

Cape May Warblers were quite common Apr. 15—May 8, 1954 with 14 seen on May 2, (J. C. H. and J. T. T., Migrant, 25:55). Singing: Apr. 25, 1954, 10, Maloney Hts.; Apr. 29, 1951, 3, P.; Apr. 29, 1954, I, S. H.; May 2, 1954, I, Knoxville; May 4, 1952, 5, P.; May 5, 1948, I, P.; May 8, 1954, 3, U. T. C. F.; May 10, 1953, I, Dry Gap.

170—BLACK-THROATED BLUE WARBLER (*Dendroica caerulescens*). — Sp. and F. M. Seven records between Apr. 18 and May 16; eight records between Sept. 17 and Oct. 18. Apr. 18, 1942, 1, S. H., (M. B. M.); Apr. 28, 1940, 1, I. H., (W. M. W.); Apr. 29, 1944, 1, S. H., (M. B. M.); May 3, 1936, 2, I. H., (W. M. W.); May 6, 1939, 1, I. H., (W. M. W.); May 9, 1948, 1, S. H., (M. B. M.); May 15-16, 1951, 1, singing, S. H., (M. B. M.). Sept. 17, 1949, 1, P.; Sept. 20, 1936, 1, I. H., (W. M. W.); Sept. 21, 1952, 1, I. H., (M. B. M.); Oct. 2, 1949, 1, S. H., (M. B. M.); Oct. 3, 1948, 1, S. H., (M. B. M.); Oct. 12, 1954, 1, S. H., (M. B. M.); Oct. 16, 1956, 1, F. C., J. B. Owen; Oct. 18, 1947, 1, U. T. C. F.

171—MYRTLE WARBLER (*Dendroica coronata*). — W. R. Average earliest fall record, Oct. 12; earliest, Sept. 26, 1937, 6, A. J. L., (W. M. W.). Average latest spring record, May 9; latest, May 12, 1949, 1, U. T. C. F. and May 12, 1953, 1, S. H., (M. B. M.).

Abundance: Based on 190 trips between Oct. 12 and May 9.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	272	108	233	409	88					223	350	245
No. of Trips	25	19	27	48	17					11	26	17
Birds per Trip	10.9	5.7	8.6	8.5	5.2					20.3	13.5	14.4
No. of Trips Contacted	25	18	19	39	13					10	23	16
% of Trips Contacted	100	95	70	81	76					91	88	94

Singing: Based on 64 roadside census trips between Oct. 14 & May 9.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	80	57	52	91	6					147	184	187
Number Singing	0	0	0	21	3					0	0	0
No. of Trips	8	10	10	10	4					4	10	8

Singing: Earliest spring date on which song was heard, Apr. 5, 1948, 4, P.
Latest spring date on which song was heard, May 7, 1950, 10, P.

172—BLACK-THROATED GREEN WARBLER (*Dendroica virens*). — Sp. and F. M. Average earliest spring record, Apr. 7; earliest, Mar. 30, 1954, 1, Inskip. Average latest spring record, May 12; latest, May 23, 1948, 1, G. F. Average earliest fall record, Sept. 3; earliest, Aug. 5, 1949, 1, Beverly. Average latest fall record, Oct. 14; latest, Oct. 26, 1947, 1, Trentville.

Abundance: Based on 102 trips between Apr. 7 and May 12 and Sept. 3 and Oct. 14.

	Apr.-May	Sept.-Oct.
No. of Birds	97	58
No. of Trips	59	43
Birds per Trip	1.6	1.3
No. of Trips Contacted	34	15
% of Trips Contacted	58	35

Singing: Based on all field trips between Apr. 4 and May 15, 1947 thru 1955.

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

No. of Contacts		65	48								
Number Singing		54	36								
No. of Trips		46	29								

Singing: Earliest date on which song was heard, Apr. 4, 1948, 2, G. F. Latest date on which song was heard, May 17, 1950, 1, Lyons View.

173—CERULEAN WARBLER (*Dendroica cerulea*). — Su. R. Average earliest spring record Apr. 22; earliest, Apr. 16, 1953, 1, S. H., (M. B. M.). Average latest fall record, Sept. 6; latest, Sept. 25, 1955, 1, U. T. C. F.

Abundance: Based on 186 trips between Apr. 22 and Sept. 6.

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

No. of Birds			20	10	11	8	6	0			
No. of Trips			22	44	38	33	42	7			
Birds per Trip			0.9	0.2	0.3	0.2	0.1	0			
No. of Trips Contacted			8	5	3	4	6	0			
% of Trips Contacted			36	11	8	12	14	0			

Most of our summer records of Ceruleans are from R. S., a few from U. T. C. F.; one seen July 19, 1947 at I. H. by (J. C. H.) and (M. B. M.); and two from S. H.: July 19, 1956, 1, (M. B. M.); and July 28, 1952, 1, singing, (M. B. M.). Singing: Earliest date which song was heard, Apr. 22, 1948, 1, U. T. C. F. Latest date on which song was heard, July 28, 1951, 1, U. T. C. F. and above record.

Reproduction: June 21, 1953, an adult Cerulean was seen feeding a young bird not long out of the nest, R. S., Dick Laurence and (M. B. M.).

174—BLACKBURNIAN WARBLER (*Dendroica fusca*). — Sp. and F. M. Average earliest spring record, Apr. 24; earliest, Apr. 4, 1935, I, U. T. C. F., (W. M. W.). Average latest spring record, May 19; latest, May 25, 1949, I, S. H., (M. B. M.). An individual observed by Ruth Reed Nevius on June 5, 1939, I. H., (W. M. W., Migrant, 10:58) is so unusually late that it may well have been abnormal. Average earliest fall record, Sept. 4; earliest, Aug. 21, 1948, I, G. F. Average latest fall record, Oct. 18; latest, Oct. 25, 1947, I, Kimberlin Hts.

Abundance: Based on 91 trips between Apr. 24 and May 19 and Sept. 4 and Oct. 18.

	Apr.-May	Sept.-Oct.
No. of Birds	47	81
No. of Trips	46	45
Birds per Trip	1.0	1.8
No. of Trips Contacted	17	23
% of Trips Contacted	37	51

Singing: Apr. 16, 1953, I, Tyson; May 6, 1948, I, I. H., May 7, 1950, 5, P., May 8, 1948, 2, I. H.; May 9, 1948, 2, Heiskell; May 10, 1953, 3, Dry Gap; May 12, 1949, 1, en route to G. F.; May 15, 1948, 2, U. T. C. F.; May 15, 1949, 3, U. T. C. F. May 15, 1949, 2, Thorngrove.

175—YELLOW-THROATED WARBLER (*Dendroica dominica*). — Su. R. Average earliest spring record, Apr. 5; earliest, Apr. 3, 1949, I, C. Average latest fall record, Sept. 20; latest, Oct. 9, 1954, I, S. H., (M. B. M.).

Abundance: Based on 218 trips between Apr. 5 and Sept. 20.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				43	72	33	12	11	8			
No. of Trips				39	44	38	33	42	22			
Birds per Trip				1.1	1.6	0.9	0.4	0.3	0.4			
No. of Trips Contacted				17	21	19	10	8	6			
% of Trips Contacted				44	48	50	30	19	27			

Singing: Based on 95 roadside census trips between Apr. 4 and Sept. 18.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				13	8	13	5	10	5			
Number Singing				13	7	11	4	0	1			
No. of Trips				8	10	20	22	27	8			

Singing: Earliest date on which song was heard, Apr. 3, 1949, I, C. Latest date on which song was heard, Sept. 11, 1948, I, G. F. Reproduction: May 10, 1939, N-4 E incubated about one day, 60 ft. up in large short-leaf pine at Mr. Ijams' place, I. H., (A. F. G., Migrant, 10:63); May 21, 1932, N-4 Y in big pine tree, I. H., (H. P. I., Migrant 3:29).

176—CHESTNUT-SIDED WARBLER (*Dendroica pensylvanica*). — Sp and F. M. Average earliest spring record, Apr. 27; earliest, Apr. 23, 1949, 1, Virtue, (J. C. H.); and Apr. 23, 1953, 1, S. H., (M. B. M.). Average latest spring record, May 16; latest, May 30, 1954, Little Switzerland, (J. T. T.). Average earliest fall record, Aug. 30; earliest, Aug. 4, 1949, 1, S. H., (M. B. M.). Average latest fall record, Oct. 10; latest, Oct. 20, 1949, 1, S. H., (M. B. M.).

Abundance: Based on 80 trips between Apr. 27 and May 16 and Aug. 30 and Oct. 10.

	Apr.-May	Aug.-Oct.
No. of Birds	35	105
No. of Trips	36	44
Birds per Trip	1.0	2.4
No. of Trips Contacted	11	24
% of Trips Contacted	31	55

Singing: Earliest date on which song was heard, Apr. 29, 1951, 5, P. Latest date on which song was heard, May 30, 1954, Little Switzerland, (J. T. T.). Other singing records: May 6, 1948, 2, I. H.; May 7, 1950, 1, Holston Riv. opposite John Sevier; May 8, 1954, 3, U. T. C. F.; May 12, 1949, 5, G. F.; May 15, 1954, 2, U. T. C. F.

177—BAY-BRETTED WARBLER (*Dendroica castanea*). — Sp. and F. M. Average earliest spring record, May 3; earliest, Apr. 28, 1951, 1, S. H., (M. B. M.). Average latest spring record, May 18; latest, May 25, 1954, 2, B. Crouch. Average earliest fall record, Sept. 17; earliest, Sept. 11, 1949, 1, S. H., (M. B. M.). Average latest fall record, Oct. 18; latest, Oct. 27, 1954, 1, S. H., (M. B. M.).

Abundance: Based on 56 trips between May 3 and May 18 and Sept. 17 and Oct. 18.

	May	Sept.-Oct.
No. of Birds	35	72
No. of Trips	24	32
Birds per Trip	1.5	2.3
No. of Trips Contacted	9	14
% of Trips Contacted	38	44

Singing: May 7, 1950, 2, P.; May 8, 1954, 5, U. T. C. F.; May 8, 1955, 1, Dry Gap; May 23, 1948, 1, Hardin Valley.

178—BLACKPOLL WARBLER (*Dendroica striata*). — Sp. M. See note at end of Introduction. Average earliest spring record, Apr. 30; earliest, Apr. 22, 1951, I, S. H., (M. B. M.). Average latest spring record, May 20; latest, May 26, 1951, I, S. H., (M. B. M.).

Abundance: Based on 36 trips between Apr. 30 and May 20.

Apr.-May	
No. of Birds	106
No. of Trips	36
Birds per Trip	2.9
No. of Trips Contacted	20
% of Trips Contacted	56

Singing: Based on all field trips between Apr. 29 and May 23, 1947 thru 1955.

Apr.-May	
No. of Contacts	125
Number Singing	75
No. of Trips	49

179—PINE WARBLER (*Dendroica pinus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	0	3	55	81	47	38	10	21	40	7	1	0
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0	0.2	2.0	1.7	1.1	1.0	0.3	0.5	1.2	0.4	—	0
No. of Trips Contacted	0	3	15	29	22	18	7	9	12	5	1	0
% of Trips Contacted	0	16	56	60	50	47	21	21	36	25	4	0

Additional winter records: Nov. 28, 29, Dec. 18, 1954 Pine Warbler feeding at suet feeder, S. H. (M. B. M.); Jan. 3, 1943, I, (W. M. W.) (Notes, Migrant, 13:63); Jan. 9, 1955, I, C.

Singing: Based on 154 roadside census trips

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	0	1	19	29	16	23	9	20	26	4	1	0
Number Singing	0	1	15	27	16	22	4	1	9	1	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Feb. 12, 1950, 1, Thorngrove Rd. Latest date on which song was heard, Oct. 26, 1947, 1, Thorngrove Rd. Reproduction: Nest 35 ft. up near top of a pine tree and near the extremity of a limb at Ijams place, I. H., (A. F. G., Migrant, 10:63),

180—PRAIRIE WARBLER (*Dendroica discolor*). — Su. R. Average earliest spring record, Apr. 16; earliest, Apr. 5, 1948, 1, P. Average latest fall record, Sept. 25; latest, Oct. 8, 1949, 1, H. M.

Abundance: Based on 215 trips between Apr. 16 and Sept. 25.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	108	139	151	22	33	13						
No. of Trips	29	44	38	33	42	29						
per Trip	3.7	3.2	4.0	0.7	0.8	0.4						
No. of Trips Contacted	18	29	26	9	16	5						
% of Trips Contacted	62	66	68	27	38	17						

Singing: Based on 92 roadside census trips between Apr. 5 and Sept. 11.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	40	51	108	14	20	7						
Number Singing	40	50	106	11	0	0						
No. of Trips	8	10	20	22	27	5						

Singing: Earliest date on which song was heard, Apr. 5, 1948, 1, P. Latest date on which song was heard, July 12, 1949, 1, Thorngrove Pike.

181—PALM WARBLER (*Dendroica palmarum*). — Sp. and F. M. Occasionally reported in winter. Average earliest spring record, Apr. 21; earliest, Apr. 14, 1953, 1, S. H., (M. B. M.). Average latest spring record, May 7; latest, May 16, 1952, 1, S. H., (M. B. M.). Average earliest fall record, Sept. 23; earliest, Sept. 11, 1948, 4, G. F. Average latest fall record, Nov. 17; latest, Dec. 19, 1950, 2, Holston River opposite John Sevier.

Abundance: Based on 74 trips between Apr. 21 and May 7 and Sept. 23 and Nov. 17.

	Apr.-May	Sept.-Nov.
No. of Birds	56	110
No. of Trips	34	40
per Trip	1.6	2.8
No. of Trips Contacted	11	21
% of Trips Contacted	32	53

Winter records: Jan. 3, 1943, 1, F. C., (W. M. W.) (Anon., Migrant, 13:63); Mar. 10, 1947, 1, U. T. Campus. Singing: Apr. 17, 1949, 1, C. Apr. 24, 1954, 2, U. T. C. F.; Apr. 25, 1948, 5, C.; May 1, 1949, 1, P.

182—OVENBIRD (*Seiurus aurocapillus*). — Su. R. Average earliest spring record, Apr. 18; earliest, Apr. 6, 1954, 1, S. H., (M. B. M.). Average latest fall record, Oct. 7; latest, Oct. 23, 1956, 2, S. H., (M. B. M.). These two birds were in the yard from Oct. 16 through Oct. 23. Previous latest date, Oct. 17, 1953, 1, (M. B. M.).

Abundance: Based on 219 trips between Apr. 18 and Oct. 7.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				46	102	16	2	0	15	3		
No. of Trips				23	44	38	33	42	33	6		
Birds per Trip				2.0	2.3	0.4	0.1	0	0.5	0.5		
No. of Trips Contacted				13	27	9	1	0	7	1		
% of Trips Contacted				57	61	24	3	0	21	17		

Singing: In this table, records are based on 81 field trips other than roadside cen. between Apr. 18 and July 1 in the years 1948-1955.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				48	108	24	2					
Number Singing				43	78	20	2					
No. of Trips				23	38	19	1					

Singing: Earliest date on which song was heard, Apr. 18, 1950, 2, C. Latest date on which song was heard, July 1, 1951, 2, H. M. Reproduction: June 1, 1947, flushed 3 Y, able to fly only 50 ft., U. T. C. F.

183—NORTHERN WATERTHRUSH (*Seiurus noveboracensis*). — Sp. and F. M. Apr. 26, 1936, 1, U. T. C. F., (W. M. W.); Apr. 27, 1941, 2, I. H., (W. M. W.); Apr. 30, 1939, 1, I. H., (W. M. W.); May 6, 1951, 1, P.; May 7, 1950, 1, P., (Anon., Migrant, 21:24); May 10, 1954, 2, singing, Millertown; Sept. 17, 1950, 1, (J. T. T.); Sept. 25, 1955, 1, Topside; Sept. 26, 1954, 1, Topside.

184—LOUISIANA WATERTHRUSH (*Seiurus motacilla*). — Su. R. Average earliest spring record, Mar. 25; earliest*, Mar. 19, 1948, 1, Kimberlin Hts. Average latest fall record, Sept. 5; latest, Oct. 11, 1936, 1, A. J. L., (W. M. W.). *One record for Mar. 18, 1951, (J. T. T., Migrant, 22:16) lacks the name of the observer.

Abundance: Based on 217 trips between Mar. 25 and Sept. 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds			8	35	60	37	20	4	1			
No. of Trips			7	48	44	38	33	42	5			
Birds per Trip			1.1	0.7	1.4	1.0	0.6	0.1	0.2			
No. of Trips Contacted			1	14	19	17	11	4	1			
% of Trips Contacted			14	29	43	45	33	10	20			

Singing: Based on 91 roadside census trips between Mar. 19 and Aug. 26.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts			2	15	16	27	11	3				
Number Singing			2	14	7	14	3	0				
No. of Trips			5	10	10	20	22	24				

Singing: Earliest date on which song was heard, Mar. 19, 1948, 1, Kimberlin Hts. Latest date on which song was heard, July 25, 1948, 1, H. M. Reproduction: May 16, 1943, nest near top of bank above sluggish stream, the entrance almost concealed by a clump of grass. 3 Y (visible) perhaps one week old. I. H., (M. B. M.).

185—KENTUCKY WARBLER (*Oporornis formosus*). — Su. R. Average earliest spring record, Apr. 22; earliest, Apr. 12, 1941, 1, S. H., (M. B. M.). Average latest fall record, Sept. 9; latest, Sept. 26, 1947, 2, S. H., (M. B. M.).

Abundance: Based on 189 trips between Apr. 22 and Sept. 9.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds			47	164	93	15	3	1				
No. of Trips			22	44	38	33	42	10				
Birds per Trip			2.1	3.7	2.4	0.5	0.1	0.1				
No. of Trips Contacted			12	37	31	8	3	1				
% of Trips Contacted			55	84	82	24	7	10				

Singing: Based on 74 roadside census trips between Apr. 28 and Aug. 21.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts			6	16	33	7	1					
Number Singing			5	16	30	3	0					
No. of Trips			2	10	20	22	20					

Singing: Earliest date on which song was heard, Apr. 22, 1948, 2, U. T. C. F. Latest date on which song was heard, July 11, 1948, 2, Thorngrove Rd. Reproduction: June 7, 1932, Mr. Ijams found a Kentucky Warbler feeding a young Cowbird and its rightful young in nest. (Anon., Migrant, 3:38).

186—CONNECTICUT WARBLER (*Oporornis agilis*). — Sp. M. The one fall record, Sept. 20, 1936, 1, I. H., (W. M. W.) may have been an error, as this species is thought to have a different fall migration route. The nine spring records (some covering several days) are all between May 10 and May 28. The bird has two different and distinctive songs, one a repeated "beecher" described by R. T. Peterson (song 1), the other suggesting "whippity" described by R. Pough (song 2). May 10-15, 1952, one seen and singing song 2 until the last day when it sang song 1, my yard, S. H., (M. B. M.) and observed and heard also by J. B. Owen and Mrs. R. J. Dunbar; May 16, 1953, 1, Little Switzerland, (J. T. T.); May 18, 26, 27, 1947, 1, seen and singing song 1, S. H., (M. B. M.); May 18, 1950, 1, seen and singing song 1, S. H., (M. B. M.); May 20, 1941, 1, I. H., (M. B. M.); May 20, 1953, 1, seen and singing song 2, S. H., (M. B. M.); May 22, 23, 24, 25, 1948, 1, seen and singing song 1, S. H., (M. B. M.), (M. B. M., Migrant, 19:27, 28); May 23, 1953, 1, singing song 2, S. H., (M. B. M.); May 28, 1949, 1, seen and singing, U. T. C. F.

187—MOURNING WARBLER (*Oporornis philadelphia*). — Sp. M. Two fall records. Spring records: May 5, 1952, 1, seen and singing, S. H., (M. B. M.); May 8, 9, 1947, 1, S. H., (M. B. M.); May 29, 1949, 1, G. F.; May 30, 1948, 1, singing, C.; June 2, 1948, 1, singing, Neubert Springs Road. Fall records: Sept. 8, 1946, 1, S. H., (M. B. M.); Sept. 14, 1955, 1, Lynnhurst Cemetery, J. B. Owen, (J. T. T., Migrant, 26:50).

188—YELLOWTHROAT (*Geothlypis trichas*). — Su. R. Average earliest spring record, Apr. 18; earliest, Apr. 10, 1953, 1, S. H., (M. B. M.). Average latest fall record, Oct. 1; latest, Oct. 18, 1947, 1, Byington.

Abundance: Based on 216 trips between Apr. 18 and Oct. 1.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				432	622	518	631	205	117	0		
No. of Trips				25	44	38	33	42	33	1		
Birds per Trip				17.3	14.1	13.6	19.1	4.9	3.5	0		
No. of Trips Contacted				22	44	34	33	36	22	0		
% of Trips Contacted				88	100	89	100	86	67	0		

Singing: Based on 101 roadside census trips between Apr. 20 and Oct. 18.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				148	200	482	564	179	56	15		
Number Singing				133	177	436	513	95	11	1		
No. of Trips				5	10	20	22	27	12	5		

Singing: Earliest date on which song was heard, Apr. 17, 1949, 10, C. Latest date on which song was heard, Oct. 5, 1947, 1, Strawberry Plains Pike. Reproduction: May 10, 1949, N-2 E, P.; July 8, 1949, feeding Cowbird, Tyson Park.

189—YELLOW-BREASTED CHAT (*Icteria virens*). — Su. R. Average earliest spring record, Apr. 24; earliest, Apr. 18, 1937, 1, A. J. L., (W. M. W.), and Apr. 18, 1954, 1, S. H., (M. B. M.). Average latest fall record, Sept. 17; latest, Oct. 3, 1951, 6, I. H., (H. P. I.).

Abundance: Based on 192 trips between Apr. 24 and Sept. 17.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				93	349	359	188	50	4			
No. of Trips				18	44	38	33	42	17			
Birds per Trip				5.2	7.9	9.4	5.7	1.2	0.2			
No. of Trips Contacted				15	43	37	26	21	4			
% of Trips Contacted				83	98	97	79	50	24			

Singing: Based on 90 roadside census trips between Apr. 25 and Sept. 18.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				27	69	259	135	41	2			
Number Singing				23	62	227	103	2	0			
No. of Trips				4	10	20	22	27	7			

Singing: Earliest date on which song was heard, Apr. 23, 1949, 1, 5 miles s.w. of Virtue, and Apr. 23, 1953, 3, U. T. C. F. Latest date on which song was heard, Aug. 27, 1949, 1, C. Reproduction: June 19, 1948, N-4 E, Vestal.

190—HOODED WARBLER (*Wilsonia citrina*). — Su. R. Average earliest spring record, Apr. 17; earliest, Apr. 10, 1952, 1, S. H., (M. B. M.). Average latest fall record, Sept. 25; latest, Oct. 12, 1947, 1, Vestal.

Abundance: Based on 213 trips between Apr. 17 and Sept. 25.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				40	77	46	7	8	13			
No. of Trips				27	44	38	33	42	29			
Birds per Trip				1.5	1.8	1.2	0.2	0.2	0.4			
No. of Trips Contacted				14	26	15	4	3	8			
% of Trips Contacted				52	59	39	12	7	28			

The one error, as The nine and May repeated ng "whip- and singing (M.) and y 16, 1953, and singing I, S. H., seen and and singing 3, 1953, 1, J. T. C. F.

Two fall (M. B. M.); 0, 1948, 1, l records: Cemetery,

e earliest (B. M.).

Nov. Dec.

Oct. 18.

Nov. Dec.

C. Latest Pike. Re- rd, Tyson

Singing: Based on 88 roadside census trips between Apr. 25 and Sept. 11.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				1	6	9	4	1	2			
Number Singing				1	6	9	4	0	1			
No. of Trips				4	10	20	22	27	5			

Singing: Earliest date on which song was heard, Apr. 17, 1949, 1, C. Latest date on which song was heard, Sept. 18, 1951, 1, P, and Sept. 18, 1955, 1, U. T. C. F. Reproduction: June 4, 1949, N-3 E and one egg of Cowbird three ft. up in fork of five ft. chestnut-oak sapling in open thicket beside small dry stream in oak-hickory wood, G. F. Bird flew silently from nest as we were eight feet away.

191—WILSON'S WARBLER (*Wilsonia pusilla*). — Sp. and F. M. Average earliest spring record, May 13; earliest, May 1, 1955, 1, U. T. C. F. Average latest spring record, May 23; latest, May 24, 1954, 1, S. H., (M. B. M.). Average earliest fall record, Sept. 10; earliest, Sept. 1, 1956, 1, S. H., (M. B. M.). Average latest fall record, Sept. 28; latest, Oct. 1, 1952, 1, S. H., (M. B. M.). Singing: May 12, 1949, 1, Knoxville; May 23, 1948, 1, Hardin Valley.

192—CANADA WARBLER (*Wilsonia canadensis*). — Sp and F. M. Average earliest spring record, May 2; earliest, Apr. 27, 1948, 1, S. H., (M. B. M.). Average latest spring record, May 21; latest, May 26, 1951, 1, S. H., (M. B. M.). Average earliest fall record, Aug. 23; earliest, Aug. 19, 1948, 1, P. Average latest fall record, Sept. 21; latest, Oct. 5, 1950, 1, S. H., (M. B. M.).

Abundance: Based on 66 trips bet. May 2 and May 21 and Aug. 23 and Sept. 21.

	May	Aug.-Sept.
No. of Birds	29	17
No. of Trips	32	34
Birds per Trip	0.9	0.5
No. of Trips Contacted	12	11
% of Trips Contacted	38	32

Singing: May 7, 1950, 3, P.; May 8, 1948, 1, I. H.; May 8, 1955, 1, Dry Gap; May 9, 1948, 1, Bearden; May 10, 1949, 2, P.; May 12, 1949, 3, en route to G. F.; May 13, 1948, 3, Tyson Park; May 15, 1948, 3, U. T. C. F.; May 15, 1949, 2, U. T. C. F.; May 15, 1949, 1, Thorngrove Pike; May 16, 1955, 1, Lyons View; May 20, 1949, 2, U. T. C. F.; May 20, 1955, 1, Lyons View; May 21, 1950, 1, n.e. Knox County.

193—AMERICAN REDSTART (*Setophaga ruticilla*). — Su. R. Average earliest spring record, Apr. 17; earliest, Apr. 11, 1948, 1, S. H., (M. B. M.), and Apr. 11, 1948, 1, Knoxville. Average latest fall record, Oct. 2; latest, Oct. 11, 1952, 1, S. H., (M. B. M.).

Abundance: Based on 220 trips between Apr. 17 and Oct. 2.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				2	69	8	8	7	47	0		
No. of Trips				27	44	38	33	42	33	3		
Birds per Trip				0.1	1.6	0.2	0.2	0.2	1.4	0		
No. of Trips Contacted				2	27	3	4	5	18	0		
% of Trips Contacted				7	61	8	12	12	55	0		

Singing: Earliest date on which song was heard, Apr. 24, 1949, 1, P., and Apr. 24, 1954, 1, U. T. C. F. Latest date on which song was heard, June 8, 1952, 1, Knoxville. Reproduction: July 8, 1949, Redstart seen feeding Cowbird, Tyson Park.

194—HOUSE SPARROW (*Passer domesticus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	553	662	571	996	1013	1658	2069	1923	448	382	311	225
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	22.1	34.8	21.1	20.8	23.0	43.6	62.7	45.8	13.6	19.1	12.0	13.2
No. of Trips Contacted	20	17	23	39	32	30	32	35	21	14	22	10
% of Trips Contacted	80	89	85	81	73	79	97	83	64	70	85	59

195—BOBOLINK (*Dolichonyx oryzivorus*). — Sp. and F. M. Average earliest spring record, Apr. 28; earliest, Apr. 22, 1950, 1, P. Average latest spring record, May 15; latest, May 25, 1954, 1, Ball Camp. Average earliest fall record, Aug. 21; earliest, Aug. 21, 1949, 4, Strong Farm. Average latest fall record, Sept. 19; latest, Sept. 27, 1953, 10, Dry Gap.

Abundance: Based on 70 trips between Apr. 28 and May 15 and Aug. 21 and Sept. 19.

	Apr.-May	Aug.-Sept.
No. of Birds	289	70
No. of Trips	35	35
Birds per Trip	8.3	2.0
No. of Trips Contacted	15	10
% of Trips Contacted	43	29

Records of large numbers: May 4, 1952, 4 flocks, 125, Dry Gap, (J. C. H.), (J. T. T., Migrant 23:25); May 15, 1952, more than 100, Millertown. Singing records: Apr. 28, 1948, 1, Strawberry Plains Pike; Apr. 29, 1948, 1, G.; May 1, 1955, 10, Dry Gap; May 5, 1948, 15, Heiskell Rd.; May 9, 1948, 1, Heiskell Rd.; May 9, 1955, 6, Millertown; May 12, 1955, 2, Ball Camp.

196—EASTERN MEADOWLARK (*Sturnella magna*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	333	305	476	1072	801	730	482	260	260	240	450	303
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	13.3	16.1	17.6	22.3	18.2	19.2	14.6	6.2	7.9	12.0	17.3	17.8
No. of Trips Contacted	19	18	25	47	41	34	31	31	19	13	24	15
% of Trips Contacted	76	95	93	98	93	89	94	74	58	65	92	88

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	139	147	211	405	310	605	382	216	88	121	160	45
Number Singing	3	45	135	214	169	325	132	21	15	38	22	7
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

197—RED-WINGED BLACKBIRD (*Agelaius phoeniceus*). — Su. R. Occasionally winters here. "One or more male Red-wings were winter residents or very early migrants because we have records of single birds from Fountain City for Jan. 12, 1939." (S. A. O.), (W. M. W., Migrant, 10:14); Jan. 24, 1936, 60, U. T. C. F., (W. M. W.); Feb. 12, 1938, 3, A. J. L., Henry Meyer, (W. M. W., Migrant, 9:15); Feb. 13, 1938, 300, Karnes, above citation.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	0	135	1291	1017	646	586	386	370	50	186	1113	128
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	0	7.1	47.8	21.2	14.7	15.4	11.7	8.8	1.5	9.3	42.8	7.5
No. of Trips Contacted	0	7	27	41	35	30	29	22	3	4	16	5
% of Trips Contacted	0	37	100	85	80	79	88	52	9	20	62	29

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	0	51	594	283	229	481	279	336	0	170	571	126
Number Singing	0	2	33	76	59	99	29	0	0	0	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Feb. 19, 1950, 5, P. Latest date on which song was heard, July 29, 1949, 1, Heiskel. Reproduction: May 1, 1949, 2 N with 3 E each, P.; May 7, 1950, some nests just built, others with as many as 4 E, P.; May 10, 1949, 1 N-3 E; 1 N-1 E; two or three building; May 20, 1949, N-1 E; 8 N-3 E each; N-4 E; N-2 Y; 2 N-4 Y each, P.

198—ORCHARD ORIOLE (*Icterus spurius*). — Su. R. Average earliest spring record, Apr. 25; earliest, Apr. 18, 1937, 1, A. J. L., (W. M. W.). Average latest fall record, Aug. 16; latest, Aug. 21, 1948, 1, Hardin Valley Rd., and Aug. 21, 1949, 2, Strong Farm.

Abundance: Based on 151 trips between Apr. 25 and Aug 16.

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Nov. Dec.													
150	303				245	537	373	151	36				
26	17												
7.3	17.8				14	44	38	33	22				
24	15												
92	88				17.5	12.2	9.8	4.8	1.6				
Nov. Dec.													
					13	38	30	27	10				
					93	86	79	82	45				

Singing: Based on 77 roadside census trips between Apr. 20 and Aug. 21.

		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
160	45				97	206	312	133	34				
22	7												
10	8				60	135	150	30	0				
R. Occa-													
residents					5	10	20	22	20				
Fountain													
24, 1936,													
y Meyer,													
n.													

Singing: Earliest date on which song was heard, Apr. 20, 1948, 1, Neubert. Latest date on which song was heard, July 23, 1949, 1, C.

199—BALTIMORE ORIOLE (*Icterus galbula*). — Sp. and F. M. Average earliest spring record, Apr. 27; earliest, Apr. 24, 1951, 1, S. H., (M. B. M.), and Apr. 24, 1954, 1, U. T. C. F. Average latest spring record, May 9; latest, May 13, 1952, 1, S. H., (M. B. M.). Average earliest fall record, Aug. 30; earliest, Aug. 30, 1948, 1, C. Average latest fall record, Sept. 17; latest, Sept. 24, 1947, 8, Vestal. This species is seen a few times during most years. Most records are for single birds; however, as many as ten have been seen in the fall, Sep. 5, 1949, 10, P.

Abundance: Based on 48 trips between Apr. 27 and May 9 and Aug. 30 and Sept. 17.

		Apr.-May		Aug.-Sept.	
Nov. Dec.					
113	128				
26	17				
12.8	7.5				
16	5				
62	29				
Nov. Dec.					
571	126				
0	0				
10	8				

P. Latest
tion: May
chers with
building;

Singing records: Apr. 24, 1954, 1, U. T. C. F.; Apr. 30, 1949, 1, Knoxville; May 4, 1955, 1, Millertown.

200—RUSTY BLACKBIRD (*Euphagus carolinus*). — W. R. Nov. 8, 1953, 1, C.; Nov. 18, 1934, 1, A. J. L., (W. M. W.); Nov. 20, 1949, 2, G. F.; Jan. 23, 1949, 2, C.; Feb. 4, 1940, 20, Frelan Goddard, (W. M. W., Migrant, 11:28); Feb. 13, 1938, 2, A. J. L., (W. M. W.), (W. M. W., Migrant, 9:15); Feb. 19, 1950, 25, P.; Feb. 21, 1954, 25, C.; Mar. 6, 1949, 120 P. and C.; Mar. 8, 1953, 25, West Emory Rd.; Mar. 12, 1950, 15, C.; Mar. 17, 1951, 3, G. F.; Apr. 22, 1950, 3, P.

201—COMMON GRACKLE (*Quiscalus quiscula*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	272	386	1562	1722	960	957	372	1189	1533	5227	3566	16
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	10.9	20.3	57.9	35.9	21.8	25.2	11.3	28.3	46.5	261.4	137.2	0.9
No. of Trips Contacted	4	6	26	45	43	32	30	24	13	13	12	3
% of Trips Contacted	16	32	96	94	98	84	91	57	39	65	46	18

Large number: Feb. 19, 1943, 4000 seen by (H. P. I.) (W. M. W., Migrant, 14:15). July 1, 1952, one seen anting with species of red ant, (*Formica* (*Neoformica*) *schaufussi dolosa*) Wheeler, Inskip.

202—BROWN-HEADED COWBIRD (*Molothrus ater*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	76	60	429	542	271	258	397	853	1262	2115	94	53
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	3.0	3.2	15.9	11.3	6.2	6.8	12.0	20.3	38.2	105.8	3.6	3.1
No. of Trips Contacted	2	6	12	42	40	36	31	21	11	5	9	2
% of Trips Contacted	8	32	44	88	91	95	94	50	33	25	35	12

Aug. 17, 1952, flock of 20 immatures, P. Reproduction: Mr. A. F. Ganier states in letter of Sept. 1956 that a writer for the Oologist between 1895 and 1900 states that he examined over 60 Cardinal nests and many others, and never found a Cowbird egg in any nests about Knoxville. An anonymous paragraph in the Migrant (3: 38) states that H. P. Ijams does not recall finding any eggs of the Cowbird in the Knoxville region prior to 1932. In 1932 he found one Cowbird egg in a Red-eyed Vireo nest and observed a young Cowbird being fed by a Kentucky Warbler. In this year Mr. Ijams observed 20 nests of birds without observing any additional nests containing eggs or young of the Cowbird.

Thirty-five nests were observed by a Mr. Hofferbert during 1932 in the Knoxville region and none were parasitized by Cowbirds. However, during the years 1940-1950, Mr. Ijams frequently told me (M. B. M.) of finding Cowbird eggs in nesting boxes of Prothonotary Warblers. On one occasion, a box contained four Cowbird and three Prothonotary eggs. See notes under: White-eyed Vireo, Hooded Warbler, Yellowthroat, Redstart, Summer Tanager, Towhee and Song Sparrow.

203—SCARLET TANAGER (*Piranga olivacea*). — Sp. and F. M. and rare Su. R. Average earliest spring record, Apr. 22; earliest, Apr. 17, 1947, I, S. H., (M. B. M.). Average latest fall record, Oct. 8; latest, Oct. 15, 1951, I, S. H., (M. B. M.).

Abundance: Based on 219 trips between Apr. 22 and Oct. 8.

Nov. Dec.		Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.											
66	16	No. of Birds			15	22	17	0	0	1	0		
26	17	No. of Trips			22	44	38	33	42	33	7		
7.2	0.9	Birds per Trip			0.7	0.5	0.4	0	0	—	0		
12	3	No. of Trips Contacted			8	10	4	0	0	1	0		
46	18	% of Trips Contacted			36	23	11	0	0	3	0		

Migrant, (*Formica*)
 Singing: Earliest date on which song was heard, Apr. 28, 1951, 1, n.e. Knox Co. Latest date on which song was heard, June 28, 1952, 4, R. S. Summer records: June 20, 1952, 2 seen and singing, total 3, R. S.; June 21, 1953, 5 seen and heard, R. S.; June 25, 1952, 3 seen, H. M.; June 28, 1952, 4 singing, 2 heard, total 6, R. S. Reproduction: 1924, a nesting Scarlet Tanager was found at I. H. Mr. Ijams considered it accidental, (H. P. L., Migrant 11: 73, 74).

204—SUMMER TANAGER (*Piranga rubra*). — Su, R. Average earliest spring record, Apr. 17; earliest, Apr. 14, 1935, 3, U. T. C. F., (W. M. W.), and Apr. 14, 1936, 1, I. H., (W. M. W.), and Apr. 14, 1953, 1, S. H., (M. B. M.). Average latest fall record, Oct. 12; latest, Oct. 20, 1949, 1, S. H., (M. B. M.).

Abundance: Based on 227 trips between Apr. 12 and Oct. 12.

Nov. Dec.		Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.											
94	53	No. of Birds			110	264	225	168	89	99	5		
26	17	No. of Trips			27	44	38	33	42	33	10		
3.6	3.1	Birds per Trip			4.1	6.0	5.9	5.1	2.1	3.0	0.5		
9	2	No. of Trips Contacted			20	42	36	30	20	29	4		
35	12	% of Trips Contacted			74	95	95	91	71	88	40		

Singing: Based on 99 roadside census trips between Apr. 20 and Oct. 11.

Nov. Dec.		Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.											
		No. of Contacts			38	110	177	142	65	45	2		
		Number Singing			17	39	85	77	2	0	0		
		No. of Trips			5	10	20	22	27	12	3		

Singing: Earliest date on which song was heard, Apr. 20, 1948, I, Neubert. Latest date on which song was heard, Aug. 27, 1949, I, C. Reproduction: May 25, 1949, pair started building on oak branch ten ft. up over driveway, nest not used, S. H., (M. B. M.). Aug. 1, 1951, unusually late nesting record, young leaving nest, (J. T. T., Migrant, 22:47). July 30, 1948, female tanager brought young Cowbird to peanut butter feeder. Male tanager was seen feeding young tanager. These were in the yard several days, and seemed to be all one family. S. H., (M. B. M.).

205—CARDINAL (*Richmondia cardinalis*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	652	558	889	1458	1220	1124	1190	1738	819	386	591	408
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	26.1	29.4	32.9	30.4	27.7	29.6	36.1	41.4	24.8	19.3	22.7	24.0
No. of Trips Contacted	25	19	27	48	44	38	33	42	31	17	25	17
% of Trips Contacted	100	100	100	100	100	100	100	100	94	85	96	100

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	312	392	446	437	408	882	1052	1552	592	276	341	258
Number Singing	1	60	126	165	125	321	295	96	0	0	0	1
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Unusual singing records: Oct. 23, 1947, I, U. T. Campus, male singing subdued song, Jan. 6, 1957, I, near U. T. Campus; Jan. 16, 1948, I, U. T. Campus; Jan. 16, 1951, 3, Inskip; Jan. 18, 1949, I, U. T. Campus; Jan. 23, 1950, I, U. T. Campus. Apr. 9, 1950, bird singing in female or immature male plumage, north Knoxville. Reproduction: Apr. 24, 1949, female on nest, P.; May 1, 1949, 2 N-3 E each, P. Sept. 2, 1940, 2 young left nest, Dorothy Williams, (W. M. W., Migrant, 11:78).

206—ROSE-BREASTED GROSBEAK (*Pheucticus ludovicianus*). — Sp. and F. M. Average earliest spring record, Apr. 28; earliest, Apr. 22, 1939, Henry Meyer. Average latest spring record, May 11; latest, May 23, 1954, I, S. H., (M. B. M.). Average earliest fall record, Sept. 17; earliest, Sept. 15, 1952, I, S. H., (M. B. M.). Average latest fall record, Oct. 12; latest, Oct. 18, 1947, I, Byington.

Abundance: Based on 58 trips between Apr. 28 and May 11 and Sept 17 and Oct. 12.

	Apr.-May	Sept.-Oct.
No. of Birds	48	31
No. of Trips	31	27
Birds per Trip	1.5	1.1
No. of Trips Contacted	16	11
% of Trips Contacted	52	41

Unusually large number: Oct. 14, 1956, about 15, Hardin Valley Rd. One winter record: Jan. 25, 1952, 1, at feeder, I. H., Mrs. R. J. Dunbar and (M. B. M.). The bird had been there several weeks, (M. B. M., Migrant 23:7, 8). Singing records: Apr. 29, 1954, 1, S. H.; May 2, 1954, 5, Knoxville census area; May 8, 1954, 5, U. T. C. F.

207—BLUE GROSBEAK (*Guiraca caerulea*). — Su. R. Average earliest spring record, May 2, earliest, Apr. 23, 1953, 1, U. T. C. F. Average latest fall record, Aug. 22; latest, Sept. 30, 1956, 1, Paul Pardue. Singing records: May 1, 1955, 1, Dry Gap; May 5, 1952, 3, one in brown plumage, C.; June 5, 1955, 1, Sterchi Farm; June 7, 1949, 1, P.; June 8, 1952, 2, one of these was an immature male, 1/2 mile west of Hardin Valley School, the other was 1/2 mile east of Hardin Valley School; July 4, 1948, 1, Hardin Valley Road; Aug. 15, 1954, 1, 1/2 mile east of H. V. School. Reproduction: The only nesting records are: Aug. 18, 1951, N, 3 ft. up in horizontal Kudzu vine beside giant ragweed, Morrell Rd., 3Y-5 to 7 days old. Male sang frequently but not seen to feed young, J.C.H., Migrant 22:44; June 22, 1952, N-4 Y about seven days old, 30 inches up in elderberry bush, vines and dead evening primrose, near Boyd's station, (J. C. H.), (J. T. T., Migrant, 23:53).

This species was not known from Knox Co. prior to 1948. Since that time it has been found at a number of stations within the county. (J. C. H., Migrant, 22:33).

208—INDIGO BUNTING (*Passerina cyanea*). — Su. R. Average earliest spring record, Apr. 24; earliest, Apr. 10, 1951, 3, (A. J. M.). Average latest fall record, Oct. 12; latest, Oct. 25, 1947, 2, Kimberlin Road.

Abundance: Based on 218 trips between Apr. 24 and Oct. 12.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				196	1175	1489	1590	992	300	21		
No. of Trips				18	44	38	33	42	33	10		
Birds per Trip				10.9	26.7	39.2	48.2	23.6	9.1	2.1		
No. of Trips Contacted				17	44	37	33	42	29	4		
% of Trips Contacted				94	100	97	100	100	88	40		

Singing: Based on 98 roadside census trips between Apr. 24 and Oct. 12.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				49	426	1266	1377	830	196	24		
Number Singing				27	294	923	937	312	9	3		
No. of Trips				4	10	20	22	27	12	3		

Singing: Earliest date on which song was heard, Feb. 22, 1948, 4, Kimberlin Hts. Latest date on which song was heard, Apr. 22, 1950, 1, P.

212—PINE SISKIN (*Spinus pinus*). — W. V. Most of our records for Pine Siskins are for the spring of 1949 and the winter of 1952-53. Earliest 1949 record, Mar. 20, 5, Maloney Rd., latest, May 10, 4, U. T. C. F., with the birds continuously reported within these dates. There are a few records for Nov. and Dec. 1952 and early 1953, with more records during April and up to May 9, when four were seen. J. T. Tanner reports: "For the first time in several years Pine Siskins have been seen here [Knoxville] in numbers. They were first reported Nov. 11, [1952] and have been seen regularly through early March, although they appear to have been scarcer during the later part of the winter. This is the first time they have been seen here since a single record in 1951, and a few in 1949." (J. T. T., Migrant, 24:15). Additional records: Apr. 15, 1954, 20, J. B. Owen; Apr. 18, 1954, 12, J. B. Owen; Apr. 25, 1954, 12, two miles west of Univ. Bridge (J. C. H. and J. T. T., Migrant, 25:25); May 5, 1955, 2, Lyons View.

213—AMERICAN GOLDFINCH (*Spinus tristis*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	325	215	355	1017	418	115	215	241	121	55	459	268
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	13.0	11.3	13.1	21.2	9.5	3.0	6.5	5.7	3.7	2.8	17.7	15.8
No. of Trips Contacted	19	19	24	46	39	28	33	41	26	16	25	15
% of Trips Contacted	76	100	89	96	89	74	100	98	79	80	96	88

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	73	118	104	178	47	75	164	182	53	39	117	175
Number Singing	0	0	0	34	10	7	11	11	0	0	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Mar. 31, 1949, 2, C. Latest date on which song was heard, Sept. 5, 1954, 2, C.

214—RED CROSSBILL (*Loxia curvirostra*). — W. V. All observation of this species in Knox Co. have been made by (J. T. T.) at his home, Little Switzerland. Dec. 20, 1952, 1, feeding on pine cones. (J. T. T., Migrant, 23:75). 1955: Dec. 11, 3; Dec. 24, 6; Dec. 27, 2. Jan 2, 1956, some flew over.

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215—RUFIOUS-SIDED TOWHEE (*Pipilo erythrophthalmus*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	233	235	472	955	626	647	755	430	105	127	143	125
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	9.3	12.4	17.5	19.9	14.2	17.0	22.9	10.2	3.2	6.4	5.5	7.4
No. of Trips Contacted	22	18	27	47	44	38	33	38	25	17	25	13
% of Trips Contacted	88	95	100	98	100	100	100	90	76	85	96	76

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	113	169	241	338	197	532	622	370	55	90	105	90
Number Singing	0	30	58	174	119	393	454	170	0	2	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Jan. 25, 1949, 1, U. T. Campus. Latest date on which song was heard, Oct. 26, 1947, 1, Karnes. Reproduction: May 1944, Towhees raised one Towhee and one Cowbird. Both young followed the male around for some days, S. H., (M. B. M.); June 8, 1947, N-3 E slightly incubated, on ground, Jones Rd.; July 29, 1947, N-2 E-1 Y, (J. T. T., Migrant, 22:47). Aug. 14, 1956, young Cowbird being fed by male Towhee, S. H., (M. B. M.).

216—SAVANNAH SPARROW (*Passerculus sandwichensis*). — W. R. Average earliest fall record, Sept. 20; earliest, Sept. 16, 1951, 2, P. Average latest spring record, May 8; latest, May 20, 1950, 1, P.

Abundance: Based on 207 trips between Sept. 20 and May 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	45	6	117	355	39				26	103	55	9
No. of Trips	25	19	27	48	13				12	20	26	17
Birds per Trip	1.8	0.3	4.3	7.4	3.0				2.2	5.2	2.1	0.5
No. of Trips Contacted	7	2	17	23	6				4	9	7	4
% of Trips Contacted	28	11	63	48	46				33	45	27	24

Singing records: Mar. 31, 1949, 2, C.; Apr. 4, 1948, 5, Hardin Valley Rd.; Apr. 5, 1948, 10, P.; Apr. 8, 1950, 3, P. and Riverside; Apr. 9, 1949, 5, Trentville; Apr. 10, 1948, 1, Lyons View; Apr. 11, 1948, 23, Trentville; Apr. 20, 1948, 2, s. Knox Co.; Apr. 22, 1950, 3, P.; May 1, 1949, 5, P.

217—GRASSHOPPER SPARROW (*Ammodramus savannarum*). — Su. R. Occasionally seen in winter. Average earliest spring record, Apr. 11. Average latest fall record, Sept. 23. Winter records: Jan. 11, 1948, 1, across Holston from John Sevier. Mar. 4, 1942, 1, Ritta, (Henry Meyer, Migrant, 13:49); Mar. 6, 1949, 1, C.; Nov. 8, 1953, 1, C.; Dec. 13, 1954, 1, C.

One winter record: Dec. 22, 1934, 2, (S. A. O.) (Anon., Migrant, 6:8). Large numbers: Mar. 20, 1955, 35, C.; Mar. 24, 1954, 25, C.; Nov. 8, 1953, 15, C. Singing records: Mar. 20, 1955, 5, C.; Mar. 24, 1954, 5, C.

220—LARK SPARROW (*Chondestes grammacus*). — F. V. Two records only: Aug. 11, 1951, 1, near Virtue, on fence wire beside road in grassy field. Aug. 18, 1952, 1, Sterchi Farm, on hedge row, along road through field, (M. B. M.).

221—BACHMAN'S SPARROW (*Aimophila aestivalis*). — Su. R. Average earliest spring record, Apr. 14; earliest, Mar. 29, 1948, 1, Bearden. Average latest fall record, Aug. 18; latest, Sept. 27, 1953, 1, Topside, (J. T. T.).

Abundance: Based on 169 trips between Apr. 14 and Aug. 18.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds				45	37	50	50	31				
No. of Trips				29	44	38	33	25				
Birds per Trip				1.6	0.8	1.3	1.5	1.2				
No. of Trips Contacted				16	16	20	21	13				
% of Trips Contacted				55	36	53	64	52				

Singing: Based on 87 roadside census trips between Mar. 29 and Aug. 26.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts				1	23	17	43	41	30			
Number Singing				1	19	17	43	41	28			
No. of Trips				1	10	10	20	22	24			

Singing: Earliest date on which song was heard, Mar. 29, 1948, 1, Bearden. Latest date on which song was heard, Aug. 26, 1948, 2, C.

222—SLATE-COLORED JUNCO (*Junco hyemalis*). — W. R. Average earliest fall record, Oct. 23; earliest, Oct. 17, 1948, 1, S. H., (M. B. M.). Average latest spring record, Apr. 18; latest, May 1, 1949, 1, I. H., (J. T. T.), and May 1, 1955, 1, Mrs. E. E. Overton.

Abundance: Based on 145 trips between Oct. 23 and Apr. 18.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	493	348	548	156						5	293	346
No. of Trips	25	19	27	25						6	26	17
Birds per Trip	19.7	18.3	20.3	6.2						0.8	11.3	20.4
No. of Trips Contacted	25	17	25	17						3	21	16
% of Trips Contacted	100	89	93	68						50	81	94

223—CHIPPING SPARROW (*Spizella passerina*). — Su. R. Observed in winter in some years. Average earliest spring record, Mar. 7; earliest, Feb. 14, 1936, Park City, (W. M. W.). Average latest fall record, Nov. 4; latest, Nov. 13, 1947, 3, Hardin Valley Road. Winter records: Dec. 26, 1937, 1, H. Meyer (Anon., Migrant, 9:8); Jan. 1, 1941, 4, F. Goddard, W. D. Yambert and W. W. Walker at 30 ft. (Table II addenda, Migrant, 12:9).

Abundance: Based on 285 trips between Mar. 7 and Nov. 4.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds			253	781	539	586	451	164	89	173	48	
No. of Trips			25	48	44	38	33	42	33	20	2	
Birds per Trip			10.1	16.3	12.3	15.4	13.7	3.9	2.7	8.7	24.0	
No. of Trips Contacted			16	40	32	31	30	32	14	8	2	
% of Trips Contacted			64	83	73	82	91	76	42	40	100	

Singing: Based on 89 roadside census trips between Mar. 14 and Aug. 22.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts			173	328	187	497	389	144				
Number Singing			96	185	118	393	310	78				
No. of Trips			6	10	10	20	22	21				

Singing: Earliest date on which song was heard, Mar. 14, 1948, 15, Hardin Valley Rd. Latest date on which song was heard, Aug. 22, 1948, 1, Trentville. Reproduction: Sept. 2, 1951, young out of nest, (J. T. T., Migrant, 22:47).

224—FIELD SPARROW (*Spizella pusilla*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	691	781	1065	1084	789	823	930	973	203	385	608	523
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
Birds per Trip	27.6	41.1	39.4	22.6	17.9	21.7	28.2	23.2	6.2	19.3	23.4	30.8
No. of Trips Contacted	23	19	27	48	43	35	32	42	22	16	24	16
% of Trips Contacted	92	100	100	100	98	92	97	100	67	80	92	94

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	367	613	655	334	271	663	789	821	98	271	338	323
Number Singing	0	57	227	253	213	564	708	657	3	0	0	0
No. of Trips	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Feb. 7, 1950, sang twice, Vestal. Latest date on which song was heard, Oct. 26, 1949, three times in good voice, Vestal. Reproduction: Aug. 6, 1939, late nest (W. M. W., Migrant, 10:58).

225—WHITE-CROWNED SPARROW (*Zonotrichia leucophrys*). — W. R. Average earliest fall record, Nov. 15; earliest, Oct. 18, 1953, 10, G. F. Average latest spring record, Apr. 30; latest, May 21, 1954, 1, Ball Camp.

Abundance: Based on 152 trips between Nov. 15 and Apr. 30.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	46	36	23	32							42	17
No. of Trips	25	19	27	48							16	17
Birds per Trip	1.8	1.9	0.9	0.7							2.6	1.0
No. of Trips Contacted	8	8	7	8							6	6
% of Trips Contacted	32	42	26	17							38	35

Singing: Based on 50 roadside census trips between Nov. 22 and Apr. 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	34	16	9	12							33	7
Number Singing	4	0	1	2							6	2
No. of Trips	8	10	10	10							4	8

Singing: Earliest date on which song was heard, Oct. 18, 1953, 4, G. F. Latest date on which song was heard, May 9, 1951, 1, Dry Gap.

226—WHITE-THROATED SPARROW (*Zonotrichia albicollis*). — W. R. Average earliest fall record, Oct. 8; earliest, Oct. 3, 1952, 1, S. H., (M. B. M.). Average latest spring record, May 12; latest, May 14, 1951, 1952 and 1954, S. H., (M. B. M.).

Abundance: Based on 197 trips between Oct. 8 and May 12.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	986	462	351	568	74					259	683	505
No. of Trips	25	19	27	48	21					14	26	17
Birds per Trip	39.4	24.3	13.0	11.8	3.5					18.5	26.3	29.7
No. of Trips Contacted	22	17	23	44	13					10	25	17
% of Trips Contacted	88	89	85	92	62					71	96	100

Singing: Based on 62 roadside census trips between Oct. 14 and May 5.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts	463	367	218	170	1					138	427	431
No. of Singing Trips	11	7	10	59	0					34	59	23
No. of Trips	8	10	10	10	2					4	10	8

Singing: Earliest date on which song was heard, Oct. 18, 1947, 6, Byington and Oct. 18, 1953, 3, G. F. Latest date on which song was heard, May 11, 1954, 1, Lyons View.

227—FOX SPARROW (*Passerella iliaca*). — W. R. Earliest fall record, Oct. 27, 1956, 1, S. H., M. B. M.). Latest spring record, Mar. 21, 1936, 1, I. H., (W. M. W.). We have two records for Nov., one for Dec., three for Jan., but all other records are for Feb. and Mar. when this species is most often seen. Feb. 28 through Mar 6, 1946, 2, S. H., feeding on canary seed put out for White-throats, (M.B.M.). Feb. 12 through Mar. 12, 1955, 2, S. H., (M. B. M.) weather suddenly cold, 5°, on Feb. 12.

228—LINCOLN'S SPARROW (*Melospiza lincolni*). — Sp and F. M. One winter record, Jan. 3, 1942, 3, Knoxville, (H. P. I.), (W. M. W., Migrant, 13:63). Spring record, May 12, 1949, 1, Farragut. Fall records: Oct. 5, 1947, 1, Strawberry Plains Pike; Oct. 18, 1953, 3, Farragut; Oct. 23, 1948, specimen killed by cat, Vestal; Oct. 23, 1955, 1, Amherst.

229—SWAMP SPARROW (*Melospiza georgiana*). — W. R. Average earliest fall record, Oct. 18; earliest, Sept. 26, 1954, 1, Lynnhurst. Average latest spring record, Apr. 30; latest, May 7, 1950, 3, P.

Abundance: Based on 171 trips between Oct. 18 and Apr. 30.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	63	9	2	32						13	50	22
No. of Trips	25	19	27	48						9	26	17
per Trip	2.5	0.5	0.1	0.7						1.4	1.9	1.3
No. of Trips Contacted	9	5	2	8						5	8	7
% of Trips Contacted	36	26	7	17						56	31	41

Singing records: Apr. 22, 1950, 5, P.; May 7, 1950, 2, P.

230—SONG SPARROW (*Melospiza melodia*). — P. R.

Abundance: Based on 372 trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Birds	414	438	607	1159	1025	1084	945	376	146	251	495	299
No. of Trips	25	19	27	48	44	38	33	42	33	20	26	17
per Trip	16.6	23.1	22.5	24.2	23.3	28.5	28.6	9.0	4.4	12.6	19.0	17.6
No. of Trips Contacted	24	19	27	46	42	35	33	39	24	17	24	17
% of Trips Contacted	96	100	100	96	95	92	100	93	73	85	92	100

Singing: Based on 154 roadside census trips.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of Contacts Number Singing	119	300	246	387	435	903	815	330	66	157	243	182
No. of Trips	12	169	164	305	331	756	664	175	9	65	54	15
	8	10	10	10	10	20	22	27	12	7	10	8

Singing: Earliest date on which song was heard, Jan. 3, 1948, 1, Trentville. Latest date on which song was heard, Dec. 19, 1954, 2, Byington. Reproduction: July 28, 1951, Song Sparrow feeding young Cowbird, S. H., (M. B. M.).

231—PIGEON HAWK (*Falco columbarius*). — Sp. V. Known from a single record, May 13, 1957, 1, Ebenezer, perched in dead-topped tree 75 feet from observer beside road.

SUMMARY

In summary, the 231 species of birds recorded in Knox County are assigned to the following categories in the numbers indicated: permanent resident, 51; summer resident, 51; winter resident 42; migrant, 65; visitant, 13; and accidental, 9. Six of the species have been included in the text in a second category, in addition to the primary category on which the above numbers are based. For example, the Blue-winged Teal is in the primary category of migrant, although it also occurs rarely as a winter resident.

For 130 species there are tables providing information as to the number of individuals observed. Tables giving the number of individuals heard singing during each month are included for 46 species.

Information about reproduction is presented for a number of species.

Earliest arrival and latest departure dates are given for those migrating species which are of regular occurrence, and average dates of arrival and departure are given for the species for which we have sufficient records.

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